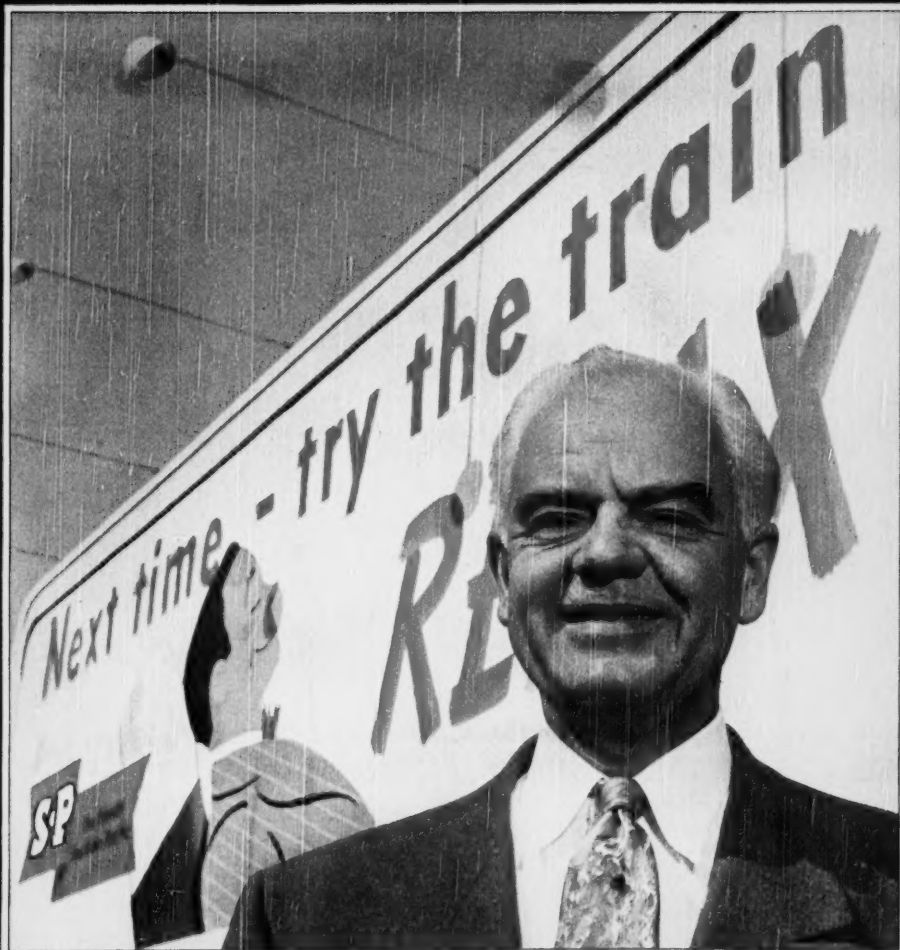


BUSINESS WEEK

Housing Boom
ANOTHER RECORD YEAR?
PAGE 19



C. E. Peterson: His enthusiasm sells Californians on S. P. train travel (page 22)

A MCGRAW-HILL PUBLICATION

MAR. 11, 1950

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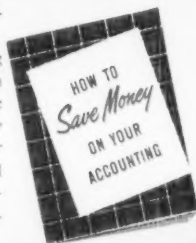
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Photo courtesy Eagle-Crusher Co., Inc.

Rubber fingers get a grip on snow

A typical example of B.F. Goodrich product improvement

IT WOULD take six men with shovels an hour to do what this snow loader does in ten minutes. At top loading speed, it can fill a truck in one minute.

The loader scoops up the snow in small, moving buckets, takes it up an elevator, and — by way of the conveyor belt — moves it out over the truck and dumps it.

But it was impossible to keep the snow moving. It froze to the belt, piled up on the smooth surface. Loading had to stop for cleaning.

The problem was handed to a B.F. Goodrich engineer who suggested a change to the B.F. Goodrich "Griptop" conveyor belt. "Griptop" takes hold and moves things, because of its thousands of tiny rubber "fingers" on the belt's surface. Developed by B. F. Goodrich for moving slippery cartons, bags, sand and other materials up steep grades, it proved to be the very thing for the snow loader, too. It ends all stops to clean the belt, and gets streets cleaner, faster.

This is typical of B.F. Goodrich research which is constantly at work to develop new products and improve applications of older ones. That's why — no matter what rubber products you use — it pays to check regularly with your BFG distributor, to make certain you get all the latest improvements and savings. *The B.F. Goodrich Company, Industrial and General Products Division, Akron, Ohio.*

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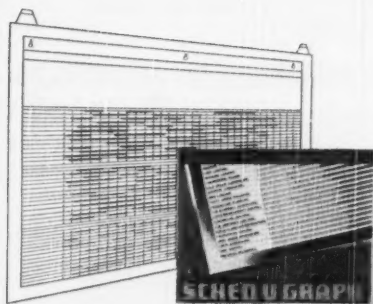
There's no pat answer...

to the problem of cutting costs for your business. But we have found that most "overhead" costs can be reduced—by examining time-worn methods, planning new procedures, integrating systems and equipment.

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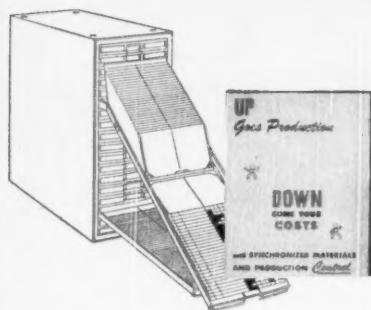
A glance at the next page will show you why Remington Rand can reduce your operating costs on such production headaches. Not with any "pat answer"—for we tailor-make our solutions. Not with any one product—for we can draw on many methods, machines and systems to fit your particular needs.

To prove our point, we're offering three tell-all, show-all descriptions of proved-in-use Remington Rand answers to production control problems. Send for the one that interests you most. Or, better still, let us help you decide which one is best for your needs...by sending you all *three* booklets, free and without obligation.



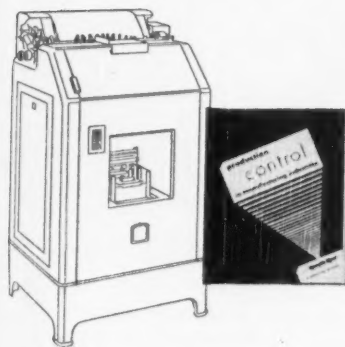
There are 32 pages of answers in this book on famous SCHED-U-GRAPH, the visual chart-board scheduling system. It outlines a down-to-earth low-cost simple system for handling machine load on a job-shop basis... production scheduling for more continuous operations... and inventory control for production-line set-ups. In all these jobs — and many more — Sched-U-Graph usually pays for itself in just a few weeks!

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We make them all**

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SPENCER FORMALDEHYDE, in itself, is as dull as a rusty butter knife. It has no personality.

Yet, reacted with phenol, or with urea and melamine, to produce synthetic resins (as was 88% of the total tonnage sold last year) . . . drab formaldehyde blossoms forth into bright, brilliant plastics colored all the hues of the rainbow.

The lusty, booming plastics industry is now making dozens of the articles you use every day in your home — and they look much better, cost much less and are more practical than the items they replaced.

Yes, our Spencer Formaldehyde is a Liquid Chameleon, but that's not all . . . More and more, it's used in the manufacture of synthetic chemicals, in the making of shrink-proof, crease-resistant textiles, in the production of coal-tar dyes, in tanning leather and so on.

And Spencer Chemical Company, with a new, modern plant in the Chicago area, is well located to help mid-American industry make the most of formaldehyde. Our sales and technical staffs are at your service and will be glad to present any facts or figures you request.

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THE MAN WHO GOT LOST IN A RULE BOOK!

(AND WAS ALMOST SMOTHERED IN WHEREASES)

by Mr. Friendly



If he should wreck his car, just what would be his fate?
Would they scold him, would they hang him?
It depended on the State.
Would it cost a million bucks (a fair amount of dough)
Or a dollar and a half? He thought he ought to know.
He bought a ton of rule books and strained his mental
powers
For a fair amount of time...20 years and 40 hours.
Till at last he sighed and said with a frown,
"They make as much sense when read upside down!"

Here Mr. Friendly steps in and shows the poor fellow
American Mutual's wonderful illustrated magazine*
which explains in clear-cut, every-day language
the driving rules for all 48 states—Financial
responsibility laws, how to report accidents, hand
signals, state inspection, etc.

Well, he wrote the American Mutual Co.
And learned the state laws from Me. to Mo.
In fact he knows every doggone law
On every Rd. from Cal. to Fla.



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... the first American liability insurance company

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*A 50¢ MAGAZINE for 15¢!
It cost us 50¢ to bring you this special
edition of "WATCH" Magazine.
Yet this excellent guide to safer
driving costs you only 15¢ to cover
cost of handling and postage. Get
your copy today. Write American
Mutual Liability Insurance Co.,
Dept. B-71, 142 Berkeley St.,
Boston 16, Mass.



Where in the world...



1... is Easter celebrated with ice carnivals?



2... are bonfires lighted on hilltops in observance of Easter?



3... does the clergy wash the feet of paupers during Holy Week?



4... do Easter celebrants cavort in bull skins that sputter with firecrackers?

These Easter customs are observed in lands that are within easy speaking distance of your home or office! As a matter of fact, you can send your voice to almost any part of the world—with surprising swiftness.

Is there a faraway friend you would like to chat with... or an important business matter that requires personal attention? Just say to the Long Distance operator: "I want to make an overseas call." The cost? Surprisingly low.

4. Nicaragua

3. Belgium

2. Southern Germany

1. Norway

BELL SYSTEM OVERSEAS TELEPHONE SERVICE



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Houses, Houses, and Houses

• The sky's the limit on home-builders' plans for 1950. **BUSINESS WEEK** predicts another record-breaking year.

Mystery Settlement

• What does the coal agreement mean in terms of production controls... politics... union power?

ICI Moves In

• Britain's chemical giant now invades American market following the end of its agreement with du Pont.

Management.....P. 48

Composite Picture

• Three experts, in three fields, poked into International Harvester. Each had a different appraisal.

ProductionP. 75

Multum in Parvo

• Subminiature electronic circuits—developed for guided missiles—promise big things for industry.

LaborP. 122

Chrysler Man or UAW?

• Who left the doodles on the conference table? Psychiatrist can't say, but he can tell what was happening.

Business Abroad.....P. 137

Shorter Odds

• How's Tito making out... economically... politically? Our gamble on him isn't such a long-shot now.

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It's the Best Motor Oil known to Science



(Partial view of the enormous new lubricating oil plant at Lake Charles, La., where this great new oil is processed.)

"ANTI-FOULING" OIL made by the Remarkable new "HEART-CUT" PROCESS

This new oil—the best known to science...
gives you a cleaner engine...more economy
...minimum carbon residue.



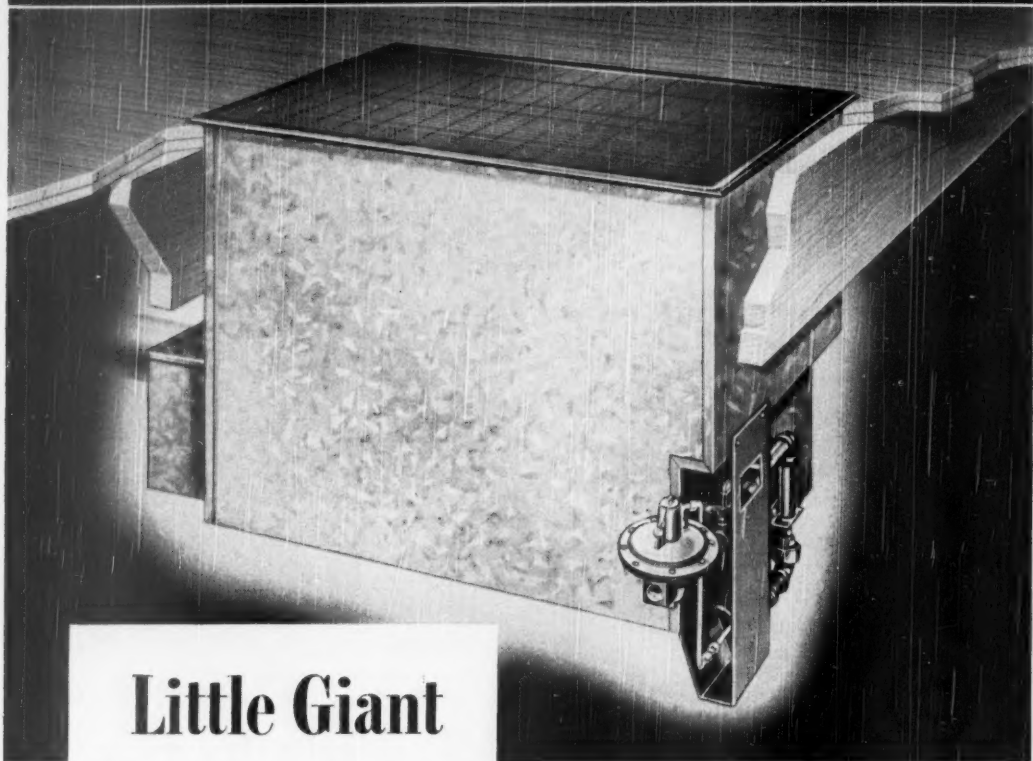
It's here now! The remarkable motor oil from the giant new \$42,000,000 lubricating oil plant at Lake Charles, La. The plant that's been the big talk of the oil industry for months.

New Premium Koalmotor is made by the unique "Heart-Cut" Process which retains only the choicest part of the finest crudes. It's so superior that in recent engine tests it outscored nine other major premium motor oils. No wonder Premium Koalmotor is better in every way! Cleans better, seals better, cools better and fights acid, sludge and corrosion far more effectively. Switch to this remarkable new oil today.

start saving Dollars today...stop at
CITIES  SERVICE

AMERICAN-Standard

First in heating . . . first in plumbing



Little Giant

THE Navaho Floor Furnace, recently introduced by American-Standard, is a brand-new heating unit—a special solution to a special heating problem.

Small homes in the South and Southwest, summer cottages, and similar small buildings where heating requirements were moderate but heating efficiency important, needed a compact, shallow floor furnace. A gas-fired floor furnace that would supply dependable, care-free warmth at exceptionally low cost.

The Navaho is it. It's just a little fellow. Only 27½ inches deep over-all. Takes up only a little floor space.

Is easily installed in the floor of any small building. But it does a giant-size job of keeping that building warm and comfortable.

This furnace, developed by our Institute of Heating Research, adds another to the complete line of heating units manufactured by American-Standard. It is further proof that whatever your needs in heating equipment or plumbing fixtures, whatever type of building you are interested in, American-Standard is able to supply you.

LOOK FOR THIS



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BUSINESS OUTLOOK

BUSINESS WEEK

MARCH 11, 1950



It won't take much over three weeks for Business Week's Index of Business Activity to recover practically all of its coal-strike loss.

The drop in the index was 5½% from the 1950 top (page 13).

Already coal output is back pretty well to normal. Railroads have recalled workers; freight volume is recovering rapidly. And, in about two weeks, steel will be back at full blast.

Wall Street greeted the end of the coal strike relatively calmly.

Traders hadn't expected business to go to pot. They hadn't dumped stocks during the strike; they didn't rush to buy when it ended (page 120).

Incidentally, Tuesday's wave of selling had little to do with strike news. Also, it probably was meaningless as a business indicator.

The price dip was what Wall Streeters call "technical." The market never has had a "correction" in its eight-month upswing.

Two business indicators will bear close watching in the next couple of months: (1) steel operations, and (2) prices.

Fortunately, these are two of the easiest "barometers" to follow. Their usefulness is enhanced by their up-to-dateness.

Steel rarely has hogged the stage any more completely in business planning than it has in the last few months.

First there was fear of a steel strike. Metal workers built inventory. So steel output presumably was pushed above its "natural" level.

Then the strike came last October. Inventory was depleted. New orders were so insistent that many observers said: "A high steel rate for six months."

A few people didn't believe that "six months" talk. They figured steel would get back to "normal" much more quickly. But they never found out. The coal trouble scrambled the steel supply-demand picture again.

Autos, other consumers' hard goods, and construction are the industries that account for most of the present steel demand.

There's no sign that they will be turning sour any time soon.

But do they require steel output at 90% to 95% of capacity? Or, once their inventories are balanced, will the rate be 80%? And will they get steel inventories into balance in April, or will it take until August?

Here's the story prices have been telling: At the high level of industrial production and of consumer spending since October, the forces of inflation and deflation neutralize one another.

Farm prices are supposed to drop another 10% this year. Competition, we are told, is sure to nip away at industrial prices.

But the averages just don't seem to have read the script.

Farm prices have been going up, partly seasonally, for six weeks.

Industrial prices have moved in a most amazingly straight line ever since last June (when the postwar "correction" hit bottom after a decline of a little less than 7%).

Disruptions in industry caused by the coal strike weren't enough to

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK

MARCH 11, 1950

make prices drop. Apparently it will take a fairly major change in business conditions—or spending patterns—to put prices either up or down.

Money supply may prove to be the determining factor.

Money supply is the sum of currency in circulation and bank deposits. With the federal government running a deficit, bank deposits will rise.

•
Home building is disappointing no one as a boom-sustaining factor. Nor is it likely to lose strength any time before next winter (page 19).

Building materials and supplies already have had a bit of a price rise. With better weather in the spring, many items are almost sure to be short.

Home furnishings, too, are booming with some price upturns.

•
Private residential construction in the first two months of this year totaled \$1,250,000,000. That's 43% ahead of a year ago.

Meanwhile, the Dept. of Commerce describes demand for lumber as "phenomenal." It reports shipments in the 1949 fourth quarter of 9.1-billion b.ft. That's nearly 17% above the same 1948 period.

And demand continues. National Lumber Trade Barometer lists mill shipments 22.2% ahead of output for the first six weeks of this year.

•
Home furnishings, in a slump a year ago, are going great guns.

Furniture orders in January were the best ever for that month. They gained 26% over a year ago, according to Seidman & Seidman, industry accountants.

Factory sales of household washing machines totaled 275,576 in January, about 60% ahead of a year ago.

•
Deliveries of materials and parts slowed down in February. At the same time, prices tended higher. That's the finding of the monthly survey of the Purchasing Agents Assn. of Chicago.

Production and new orders continued to rise last month in the Chicago area. Hirings exceeded layoffs by two to one for the fourth month.

The trends in orders, output, and hirings all were down a year ago.

•
National employment figures throw a good deal of light on the difference in business now and a year ago.

Last year, from January to February, nonagricultural employment fell by nearly half a million. This year, it was virtually unchanged.

It is true that unemployment rose by 200,000 in February. That brought the total to a new postwar high of 4,684,000. But part of the unemployment may be blamed on the weather.

If farm employment had been as high last month as it was a year ago, unemployment in February would have dropped 500,000 instead of rising.

•
Consumers aren't paying off their Christmas debts quite so fast as might have been hoped—especially in view of the record borrowings.

The January decline in debt was \$442-million against \$571-million last year. As a percentage, the repayment this year was only 2% against 3½%.

Biggest January pay-off was on charge accounts, down \$400-million or 10%.

"Two-On-The-Aisle" in the Living Room!



Mallory Electronic Components Set the Stage for the Enjoyment of Trouble-Free Television

TYPICAL of Mallory's contribution to the evolution of television is the Mallory Capacitor... a key component that works as a tiny "storage battery", feeding electrical impulses to the tubes.

And, typical of the success of the Mallory Capacitor is the experience of one of the country's largest television manufacturers who kept a special six-month field service record. With nearly 400,000 Mallory Capacitors in service, only six failed... an outstanding record for the industry... another achievement in the Mallory proofbook of pace-setting performances.

Precision quality, backed by creative engineering, has earned Mallory an important place in the television industry... as it has in many other fields where pioneering in electronics, electro-chemistry and metallurgy is vital. Mallory components are in a host of modern products which contribute to a richer and more enjoyable life.

Mallory imagination, creative engineering and experience have helped many manufacturers solve the "unsolvable". If you have a design or production problem that falls within the scope of Mallory's activities, it will pay you to call on Mallory now!

MALLORY

SERVING INDUSTRY with Capacitors • Contacts • Controls •
Rectifiers • Switches • Vibrators • Power Supplies •
Resistance Welding Materials • Special Non-Ferrous Alloys •
Mallory Dry Batteries, The Original Mercury Batteries

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These leading companies know, too, that ALCOA Alumina makes *glass* sparkle brighter . . . gives *glazes* more impact resistance . . . makes *abrasives* cut faster . . . increases the electrical resistance of *porcelain insulators* . . . And *refractory* manufacturers know that even a little ALCOA Alumina makes a whale of a difference in the high-temperature performance of fire brick and other refractory products.

These are just a few of the ways ALCOA Alumina helps make good products *better*. It can do the same for you! We'll gladly furnish you with complete information. Write to ALUMINUM COMPANY OF AMERICA, CHEMICALS DIVISION, 600c Gulf Building, Pittsburgh 19, Pennsylvania.

Alcoa Chemicals

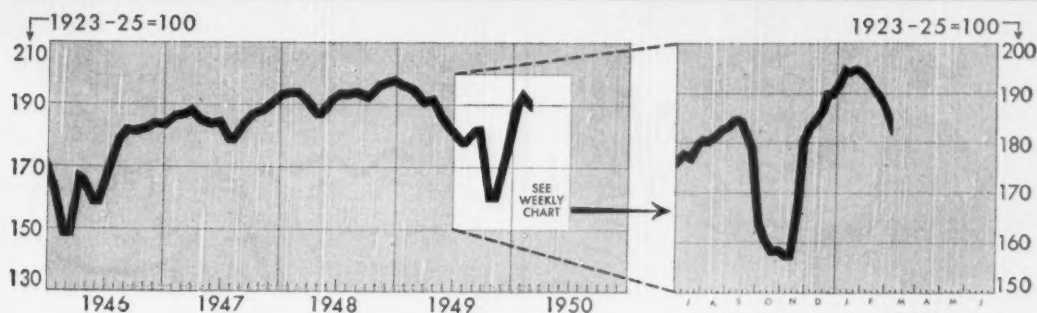


ALUMINAS and FLUORIDES

ACTIVATED ALUMINAS • CALCINED ALUMINAS • HYDRATED ALUMINAS • TABULAR ALUMINAS • LOW SODA ALUMINAS
ALUMINUM FLUORIDE • SODIUM FLUORIDE • SODIUM ACID FLUORIDE • FLUOBORIC ACID • CRYOLITE • GALLIUM



FIGURES OF THE WEEK



Business Week Index (above) *184.7 †188.1 194.6 195.6 162.2

PRODUCTION

	\$ Latest Week	Preceding Week	Month Ago	Year Ago	1947 Average
Steel ingot operations (% of capacity).....	73.5	73.7	91.5	101.4	97.3
Production of automobiles and trucks.....	127,012	†125,285	127,428	118,267	98,236
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands)....	\$31,637	\$28,652	\$29,216	\$22,842	\$19,433
Electric power output (million kilowatt-hours).....	5,879	5,854	6,062	5,552	3,130
Crude oil and condensate (daily average, 1,000 bbls.).....	4,909	5,000	4,945	5,243	3,842
Bituminous coal (daily average, 1,000 tons).....	437	404	1,250	1,887	1,685

TRADE

	\$ Latest Week	Preceding Week	Month Ago	Year Ago	1947 Average
Miscellaneous and l.c.l. carloadings (daily average, 1,000 cars).....	68	68	68	73	86
All other carloadings (daily average, 1,000 cars).....	27	25	38	43	52
Money in circulation (millions).....	\$27,060	\$27,019	\$26,928	\$27,557	\$9,613
Department store sales (change from same week of preceding year).....	-5%	+2%	+2%	-7%	+17%
Business failures (Dun & Bradstreet, number).....	179	210	199	185	228

PRICES (Average for the week)

	.....	.....	167.5	170.9	105.2
Cost of Living (U. S. Bureau of Labor Statistics, 1935-1939 = 100) Jan. 166.9	.....	.....	167.5	170.9	105.2
Spot commodity index (Moody's, Dec. 31, 1931 = 100).....	358.2	357.1	355.2	376.0	198.1
Industrial raw materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)...	221.0	220.9	220.8	265.9	138.5
Domestic farm products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)...	304.8	304.4	300.9	298.3	146.6
Finished steel composite (Iron Age, lb.).....	3.837¢	3.837¢	3.837¢	3.717¢	2.396¢
Scrap steel composite (Iron Age, ton).....	\$27.42	\$27.08	\$27.08	\$36.25	\$19.48
Copper (electrolytic, Connecticut Valley, lb.).....	18.500¢	18.500¢	18.500¢	23.500¢	12.022¢
Wheat (No. 2, hard winter, Kansas City, bu.).....	\$2.26	\$2.26	\$2.21	\$2.27	\$0.99
Sugar (raw, delivered New York, lb.).....	5.55¢	5.51¢	5.69¢	5.74¢	3.88¢
Cotton (middling, ten designated markets, lb.).....	32.10¢	32.38¢	31.44¢	32.70¢	13.94¢
Wool tops (New York, lb.).....	\$1.828	\$1.800	\$1.756	\$1.601	\$1.281
Rubber (ribbed smoked sheets, New York, lb.).....	19.59¢	19.50¢	19.25¢	18.93¢	22.16¢

FINANCE

	137.0	137.0	137.1	117.5	78.0
90 stocks, price index (Standard & Poor's Corp.).....	137.0	137.0	137.1	117.5	78.0
Medium grade corporate bond yield (Baa issues, Moody's).....	3.24%	3.24%	3.24%	3.47%	4.33%
High grade corporate bond yield (Aaa issues, Moody's).....	2.58%	2.58%	2.58%	2.71%	2.77%
Call loans renewal rate, N. Y. Stock Exchange (daily average).....	1 1/2-1 1/2%	1 1/2-1 1/2%	1 1/2-1 1/2%	1 1/2-1 1/2%	1.00%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate).....	1 1/2-1 1/2%	1 1/2-1 1/2%	1 1/2-1 1/2%	1 1/2-1 1/2%	4-4 1/2%

BANKING (Millions of dollars)

	46,926	46,848	47,767	46,112	††27,777
Demand deposits adjusted, reporting member banks.....	46,926	46,848	47,767	46,112	††27,777
Total loans and investments, reporting member banks.....	66,831	66,985	67,267	61,976	††32,309
Commercial and agricultural loans, reporting member banks.....	13,824	13,854	13,918	15,147	††6,963
Securities loans, reporting member banks.....	2,099	1,965	1,938	1,577	††1,038
U. S. gov't and gov't guaranteed obligations held, reporting member banks....	36,774	37,162	37,595	33,069	††15,999
Other securities held, reporting member banks.....	5,316	5,223	5,185	4,290	††4,303
Excess reserves, all member banks.....	920	760	1,010	812	5,290
Total federal reserve credit outstanding.....	18,454	18,092	18,620	22,422	2,265

*Preliminary, week ended Mar. 4.

††Estimate (BW—Jul. 12 '47, p. 16).

‡Date for "Latest Week" on each series on request.

*Revised.



1. Eager Ed, Explorer, had returned from foreign climes. "I like to travel," Ed exclaimed, "but I admit, at times it's nice to get back home again, to have some fun, and rest at friendly Hotel Statler, where you really are a guest."



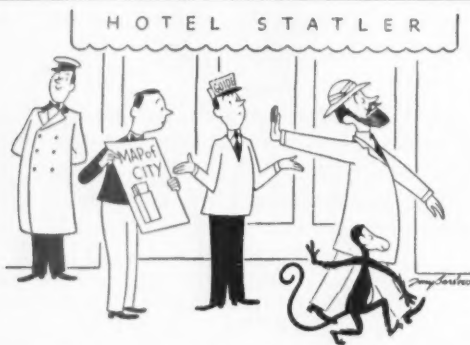
2. "The Sheiks of Araby," said Ed, "showed me a life of ease, but even they did not have beds that could compare with these. Eight hundred built-in springs and more bring comfort worth exploring—so smooth, so soft, so perfect, that in no time flat I'm snoring!"



3. "I've done some deep-sea diving," Edward cried, "and I'll tell you that Statler's bath is lots more fun—and gets you cleaner, too! The water's always piping hot, the soap is piled up high, and stacks and stacks of snowy towels make certain you'll get dry!"



4. "I've eaten lots of food that's good," cried Ed, "but this is grand! If I could meet a Statler chef, I'd like to shake his hand. Each dish is perfectly prepared—each tempts your appetite, from soup to nuts, each Statler meal is absolutely RIGHT!"



5. "You'll have no need for maps or guides, no cause for exploration," cried Ed, "because the Statler boasts a heart-of-town location. It's close to business, shops and shows. No wonder travelers say that Hotel Statler really is the perfect place to stay!"



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DETROIT • ST. LOUIS • WASHINGTON
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WASHINGTON OUTLOOK



COAL PRICE SUPPORT is a probability, not this year, but next year.

That's what Truman planners have in mind when they talk of need for "stabilizing" the big basic industry. Here's the way they look at coal, in the wake of Lewis' settlement (page 21):

- The coal industry, like agriculture, can produce more than customers use over the long haul.
- Lewis had power to "stabilize" in his old able-and-willing-to-work clause. By fixing the work week, he spread the market among the operators and spread employment among the miners.
- But Lewis' power appears to be clipped in the new contract. Competition, more than Lewis, now will determine who gets the coal market. With more emphasis on competition, inefficient mines will be forced to close. The result: Unemployment will be acute in some areas.

So there's pressure for the government to "stabilize"—to limit competition. The commission Truman proposed would write such a plan.

Officials aren't sure what form "stabilization" should take. But current talk centers on such schemes as checking competition, either by government-set minimum prices or by monthly production ceilings, with quotas for each mine. That gives you a sense of direction.

PRIVATE PENSIONS will continue to be pushed by the unions.

It's pretty clear now that Congress is going to be pretty conservative on what it adds to federal social-security pensions.

The Senate Finance Committee, for example, isn't going to extend payroll taxes up to the first \$4,800 of income, as Truman asked. It may go from the present \$3,000 ceiling to the \$3,600 the House voted, but no further.

That means less liberal social security than the unions are demanding, so they'll keep pushing private plans.

SPLIT-UP OF U. S. STEEL in an antitrust action is under consideration by the Justice Dept.

Advocates of such a move are the antitrust extremists, who take the position that private bigness is bad, simply because it **might** be used to hold down or squeeze out smaller competitors.

Their idea is to dismember Big Steel, break it into independent companies along these lines: ore

mining, transportation, steel making, finishing, and fabrication.

There's some politics in it, too: A spectacular attack on U. S. Steel would help divert attention from the split-up suit against the A&P, which has backfired—caused consumer resentment.

There's resistance even within the Justice Dept. to a suit against U. S. Steel. Key attorneys doubt that the department could make the action stick in the courts under present antitrust statutes.

But the active interest in an action based on the company's size serves to point the way the anti-trust winds are blowing.

You'll see this anti-bigness drift next month, when the Celler committee on monopoly puts U. S. Steel on the stand. Questioning will go into the company's makeup, its efficiency and its influence on prices.

The committee will try to whoop this up into a big show to impress the public with the power that goes with size. It has even hired a special attorney, Edward H. Levi, former Justice Dept. antitrust, and delayed hearings from mid-March to give him time to prepare the steel case.

O'MAHONEY'S PLAN FOR STEEL points to federal regulation of prices.

The Democratic majority on his joint House-Senate Economic Committee is recommending that steel companies be required to file proposed price increases with the Federal Trade Commission. At the start, the FTC could do no more than hold public hearings on the price schedules. But outright price-setting by the government then could become only a short second step.

This fits in with the philosophy that the big integrated companies should either be broken up, or, where a breakup is not practical, be regulated by the government. It would amount to government participation in management—a form of socialization.

TRUMAN'S TRADE COMMISSION—you can call it that now, with the appointment of Martin Hutchinson.

This is the third Truman appointee to the five-member commission in about six months. Each is a staunch Fair Dealer—Mead, the former senator from New York; Carson, the co-op man; and now Hutchinson, who earned Truman's favor by fighting Byrd in Virginia.

The new liberal lineup will show in decisions

WASHINGTON OUTLOOK (Continued)

on business practices and new FTC reports on economic concentration. It's part of the rougher ride planned for big business.

•
THE BUSINESS OUTLOOK is being swept up afresh for Truman's guidance.

The report to him will be optimistic on prospects into the third quarter. The picture is seen as a little brighter than in January, largely because the rush to recover from the coal strike will come on top of the seasonal spring lift.

But there still will be reservations about later in the year, when some of the strong lines may catch up and slow down. Also, "hard" unemployment is rising—not enough new jobs for the rising labor force.

And there will be some sour notes on prices. Steel, autos, building materials, and homes are regarded as too high for the long pull.

The report is being prepared by the Council of Economic Advisers as a look ahead at the end of the first quarter. Business, labor, and farm representatives will be consulted in an effort to make the report a cross-section of thinking.

•
PUBLIC HOUSING FIGHTS are being waged in city councils.

The fights are backed by private builders, who failed to bottle the program up in Congress last year. Thus far, five cities have voted against making use of the federal housing subsidy—South Bend, Ind.; Lincoln, Neb.; Pasco, Wash.; San Jose, Calif.; and, Tucson, Ariz.

The turndowns got a lot of publicity. But their importance is largely local. Public housing won't be slowed, nationally. Some 400 cities, including the big ones, have already moved to get their share of public housing.

•
BRANNAN PLAN COSTS now are going to be talked about by the plan's advocates.

Heretofore, they've ducked costs; they claimed they couldn't be figured. Actually, they were afraid of how big the costs might be.

Now they've hit on a politically palatable way of figuring costs—so they are the same as under present price supports. Here's how:

Present supports cost the consumer twice: once, as a taxpayer, when the government buys to keep price high. Again, when the consumer pays an artificially high market price.

The Brannan Plan would only nick the taxpayer once—for the difference between a free

market price and the price level assured the farmer.

The conclusion is that the real cost is the same under either plan to provide the same income level.

The hooker in it is this: Everyone pays part of the bill for price supports in the form of high prices. But only taxpayers would pay under the Brannan Plan.

•
CONFUSION ON DEFENSE is fast becoming an embarrassing spectacle.

Defense Secretary Johnson is on the spot. He forced the Army, Navy, and Air Force to accept the \$13.5-billion military budget, but now he can't make them stand hitched.

He's trying in every way—public statements and private briefings for congressmen—to sell his argument that the budget is adequate, even with Russia making atom bombs.

But the services are undercutting him—leaking information to the press and Congress to weaken his case.

Johnson could shut up his underlings with a tight censorship. But the House Armed Services Committee has just warned him not to shut off information—it has hinted at impeachment proceedings.

•
Congress doesn't know what to believe in all the conflicting claims. So it will be inclined to write its own ticket—boost Air Force funds this year, and force Johnson to re-examine the whole defense program for next year—when the deficit won't be an election issue.

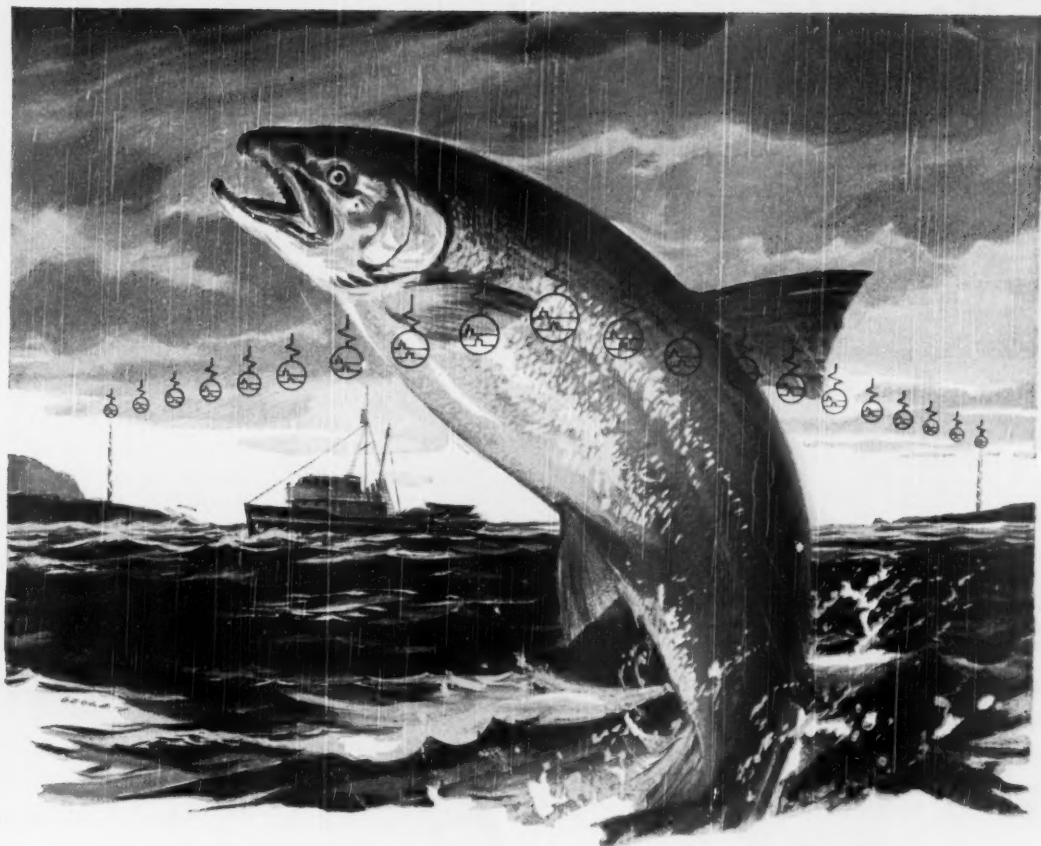
•
DEMOCRATIC CAMPAIGN PLANS are firming up—and they are big.

The party remembers 1946, when it coasted in the off-year elections and Republicans won the House and Senate. So it's leaving nothing to chance now.

Claims of achievement since 1933 are being listed state by state—growth in business, rise in wages and farm income, aids to housing, vets, etc.

The drive for House and Senate seats will center in the Midwest and West. The national committee has just reassured the farm states that taxing co-ops is a Republican idea, which Democrats won't accept.

A Hollywood-type rally is slated for Chicago in mid-May. The theme will be what the Democrats are doing for you. The big brass in the party will be paraded, and introduced to local workers. And Truman is expected to cap it off, with a personal appearance.



They always get a big catch

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scope face permits easy reading in lighted chart room.

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Housing: The Sky's the Limit

Residential construction heads for a new record in 1950.

Easy mortgage money, firm prices spur demand. Material shortages threaten again.

Residential construction is going to break another record in 1950.

If builders carry through with the plans they have now, this year will top even 1949's record-smashing 1,023,000 starts.

The Bureau of Labor Statistics is still standing pat on its official prediction that 900,000 nonfarm dwelling units (including apartments) will be started during 1950. But BLS is guessing low. This week BUSINESS WEEK found builders all over the country planning to equal or top 1949. Even allowing for a little over-optimism, you can see that 1950 is going to be a terrific building year.

On top of these plans there's federal housing. It will come into the picture in the last half of the year. But even without it, the building industry will be going full-blast.

• **High Water or H-Bomb**—"About the only thing that can keep me from building as many houses this year as I did last," said a Columbus builder last week, "is hell, high water, or the H-bomb."

Except for a few dissenting voices in the South, he pretty well sums up for his industry. In Omaha, Seattle, Los

Angeles, Detroit, it is the same story. "Give us any halfway decent spring and fall weather," builders say, "and we'll match our 1949 output." Many feel they will do even better.

According to the builders, the demand is there; the money is there; the labor is there. Not even a general business decline in the last half of 1950 would force many of them to change their plans.

• **Quit Waiting**—A key factor in this rosy construction picture is the way the housing market has been stepping along all through the winter. Through much of 1949 buyers were holding off, waiting for lower prices.

Now they have given up hope of a price drop. They are buying homes as fast as builders can nail them together. It's a rare town that has houses standing vacant—in any price bracket.

• **Price Brackets**—This year's market will be a good deal like 1949's. Houses in the \$7,000 to \$12,000 bracket will be the backbone of the boom.

Above this price, demand weakens rapidly. Under it, a builder just can't get enough into a house to make people buy. And despite the heavy demand,

quality is a watchword. "You have to build a mighty good house for the money to move it in a hurry," says a Los Angeles builder.

• **Firmer Costs**—There's no price-cutting in the cards for this year. Building costs have stiffened up significantly in the last few months. Almost to a man, builders expect their costs—both labor and material—to be about the same in 1950. The only movement they see would be an upward one—maybe 5% to 10%.

For the first time since the war's end, wage problems have dropped out of builders' nightmares. For the most part builders see little, if any, upward changes. In some cities, such as Seattle, wages are tied to the cost of living. In other cities, building unions are covered by long-term contracts.

Productivity is improving. Builders expect it to be at least as high as it was in the latter part of 1949—which was a long way ahead of the first postwar years.

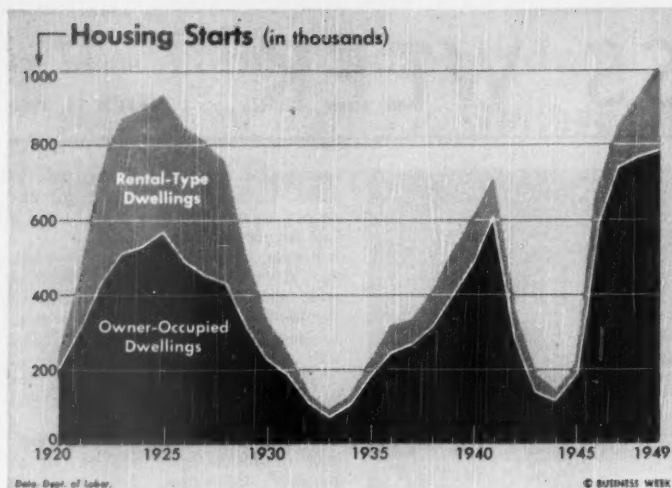
• **Lumber Shortage?**—Materials are something else again. Actually, if builders put up as many houses as they plan, they may find that they have built themselves into a real materials shortage. That—rather than demand—may be what puts the limit on building this year.

In the Pacific Northwest last week, lumbermen were already rumbling about "taking no further orders until we catch up on the ones we have." Bad January weather in that area cut into production. Good weather in the East and Midwest during the same month let builders get off with a flying 80,000 starts. This was the highest January figure on record—well over the next highest, 53,000 in January, 1948. It cut deeply into dealers' lumber stocks.

• **Same Product**—Nevertheless, the average buyer in 1950 will get about the same product that he would have got for the same money in 1949. If increased costs do come along, some builders may boost their selling prices. "But there are other factors," says Cy Williams, a Long Island builder. "Don't forget increased competition. Builders know they are going to have to deliver more for a buck."

The big push in homebuilding will come during the first half of the year. Many builders estimate they'll start 60% of their total during the first six months, wait and see during the rest. One reason for this is weather.

Another—and more important—rea-



RENTAL HOUSING has risen, but houses built for sale are the backbone of this boom.

son is that builders want to cash in while the house market is still hot. Nobody wants to be left behind if demand suddenly fades out in July or August. If things still look good then—and most builders think they will—you can always keep going full tilt.

• **Mortgage Money**—One thing that is feeding the boom—and feeding it well—is the good mortgage-money market. Money was a headache during most of 1949. Often buyers had to dig deep and come up with a hefty down payment.

"Take a veteran buying a house for \$11,500," says a San Francisco builder. "We can wrap it up for a \$500 down payment—provided, of course, the mortgage company thinks he can keep up the monthly payments."

The easy mortgage market is the work of the Federal National Mortgage Assn., the funnel that feeds in government money. Under present law a lender can sell his whole portfolio of GI loans to Fanny May. Last year Fanny had \$2.5-billion to play around with; at the end of January, 1950, it still had \$700-million uncommitted—plus whatever it will get in new authorizations this year.

• **West Coast**—In a boom where everyone is riding high, the West Coast is riding highest of all. Still hustling to house its fast-growing population it is pacing the rest of the country.

• In Southern California, Marshall Tilden, president of the Building Contractors Assn. of Calif., predicts that 125,000 units will be built in 16 counties during 1950. That will be 25% more than in 1948, the previous top year.

• In the San Francisco area, one builder, Henry Doelger, plans to build

7,000 homes in his Westlake development over the next five years. He expects to put up 1,000 in 1950 against 550 in 1949. Prices will range from \$11,950 to \$23,750, about \$750 a unit higher than in 1949.

• **Around Seattle**, builders figure that costs may be up around 5%, but the price level of the houses will be lower.

• **In Between**—In the Midwest and the East, builders are only a shade less bullish. In Chicago, Denver, Columbus, Rochester, N. Y., St. Louis, and the greater New York area, builders all agree on one point: They will put up more houses in 1950 than they did in 1949. In Boston, Cleveland, Washington, they are only a shade more cautious: They estimate they will put up at least as many houses as last year—possibly more.

• In Chicago, Manilow Construction Co., a big low-priced-housing builder, plans on 600 houses in 1950 selling for \$12,000. Last year he built 350.

A north-shore builder, Irving Blietz finds a strong demand for houses in the class market. He plans on 50 houses in the \$16,500 bracket, will build others up to \$80,000.

• In Cleveland, builders expect to repeat their 1949 performance of 11,500 units. In Rochester, N. Y., builders predict about 2,500 starts this year, a slight rise over 1949's 2,300. In St. Louis, Joseph H. Vatterott and his brothers plan to put up around 900 \$9,200 houses this year. Last year they put up 430 which sold around \$9,000.

• In the greater New York area, Levitt & Sons, the Long Island miracle men, plan to build 4,400 of their semi-prefabricated units, compared to 4,600 last year. Most of these will sell at \$7,990. Other Long Island builders

expect to build 20% to 100% more houses than they did in 1949.

• **South Lags**—The only section of the nation where any pessimism shows up is the South.

• In Richmond, for example, home builders are looking over their shoulders at 1949, rather than peering into 1950. They feel that the 17,000 dwelling units they have put up since the war's end has just about satisfied the demand.

• In Memphis, builders figure on about 4,000 units this year—a sizable drop from the 5,600 they built in 1949. But lack of money—not overbuilding—explains that. The Memphis Home Builders Assn. points to 12,000 housing units in the Negro section of town.

• **Balancing Richmond and Memphis** are Atlanta and New Orleans. In Atlanta, builders count on 12,000 units this year, a shade down from 1949's 12,240. In New Orleans they expect to put up at least as many units.

New McGraw-Hill Head

The McGraw-Hill Publishing Co. has a new president and chairman. He is Curtis W. McGraw, formerly vice-president and treasurer of the company. He is a son of the founder of McGraw-Hill and has been connected with the organization since 1920. At that time, he started with a subsidiary, the McGraw-Hill Book Co. In 1930, he became affiliated with the publishing company as a director and in 1945 was elected vice-president and treasurer.

Curtis McGraw was elevated to the top spot to succeed his older brother, James H. McGraw, Jr., who announced his resignation.

During his years of service as chief executive officer, James H. McGraw, Jr., guided and directed the very substantial expansion of all phases of the company's operation in both the domestic and international fields. He was associated with the company for 35 years and was at the top for 20 years.

Other McGraw-Hill executive changes include the creation of the office of executive vice-president to be filled by Col. Willard Chevalier, formerly publisher of BUSINESS WEEK and more recently executive assistant to the president, and the election of Joseph A. Gerardi as treasurer.

Enter ICI

Britain's biggest chemical producer, Imperial Chemical, gets toehold in U. S. by buying control of Arnold, Hoffman.

To an Englishman, Imperial Chemical Industries, Ltd., means about the same thing in chemicals as du Pont does to an American. With 12 operating divisions and close to 100,000 workers in the United Kingdom, ICI dominates the British industry.

• **Bridge**—This week ICI had finished the groundwork for a bridge into the American market. Just before the British election, it offered to buy a controlling interest in Arnold, Hoffman & Co., Providence, R. I. The U. S. company turns out a wide line of industrial chemicals. Equally significant for ICI, it's an active distributor of chemicals.

ICI's offer was a solid one. It proposed to pay \$55 a share for a minimum of two-thirds and a maximum of 70% of the outstanding 93,000 shares of Arnold, Hoffman common. Last March, the shares were offered in New York at \$20.

To get dollars for the stock, ICI won't have to draw on British reserves, it will borrow up to \$34-million from Guaranty Trust. The loan will be repaid out of Arnold, Hoffman earnings. Once the debt is cleared up, ICI will be able to count on a steady flow of dollars coming home.

• **Reasons**—What's behind the deal? Obviously, devaluation is one of the big factors. It has made ICI prices more competitive—and dollar earnings a lot more important to stockholders than they were before last September. Besides, ICI has wanted to hurdle the U. S. tariff barrier for a long time. By buying a going organization, it will be able to manufacture some of its products here. In addition, it will get a ready-made marketing setup for the products it makes in Britain—maybe even nylon. (ICI has only a selling and purchasing office in New York.)

Probably a second reason for a tighter tie now with the U. S. market is the end of ICI's patent arrangement with du Pont. Under this, ICI got, among other things, nylon, while du Pont got polyethylene. The agreement was formally junked in 1948 after it came under fire from the U. S. Justice Dept.

• **No Change Now**—As far as Arnold, Hoffman goes, ICI has given its pledge that there will be no immediate changes in top command. Apparently, the British feel the American company is in sound hands with a good earnings record behind it (in 1948 Arnold, Hoffman netted \$218,584 or \$3.06 a share).



JOHN L. LEWIS: His retreat from "able and willing" may be just strategic withdrawal.

After Settlement, What?

Coal pact sets standard for 1950 bargaining that's bound to cause trouble. Peace leaves small dealers and marginal coal producers shaky. But for business generally, strike's effect is bullish.

The coal strike ended not a day too soon. Its effects had begun to mount in geometric proportion. But while the first reaction to the news was a general feeling of relief, second thoughts were more sober. Two big questions still remain:

• **Will** the recent settlement terms have unsettling effects on the labor front in 1950?

• **Will** the losses and shutdowns caused by the strike darken the business outlook?

• **Labor**—The answer to the first question must be an emphatic "Yes." John L. Lewis' success in getting a 70¢-a-day wage hike, a 10¢-per-ton increase in employer payments to the welfare fund, and full control of the management of the fund sets par for the 1950 labor course.

Unions in many other industries will shoot for the same score. Some will try to better it. The mine workers' gains will make trouble for employers over a wide area.

• **Business**—The answer to the second question, as most observers see it, is a definite "No." The general feeling is that the coal strike will add an extra bullish tinge to the second quarter. Coal stockpiles are gone, steel backlogs are up, manufacturers' schedules are out of kilter. The next four months will see a marked effort to catch up.

In the industry itself, retail coal dealers—particularly the little ones—took the worst drubbing. In what are

normally their best months, they had practically nothing to sell. Many of them are bound to find next summer too big a strain for their already shaky capital setups.

Marginal coal producers will suffer, too—if the pact runs through its two years without a strike. These operators thrive on the ills of the industry. A strike that closes up the big producers is their bread and butter.

• **Prices and Controls**—As yet, there is no clear thinking about the future price of coal. One operator this week thought he could hold a price boost to about 10¢ a ton. Another said that 25¢ to 30¢ a ton would be more likely figures. U. S. Steel figures its coal costs will go up about 25¢ a ton.

Any moves to prevent overproduction of coal are still up in the air, too. By giving up the "able and willing" clause, it may be that Lewis suffered an important setback. But it also may be that his backtracking on the issue was only a token defeat.

There's certainly no chance of a market glut of coal in the next few months. Lewis will have time to work out some other production gimmick, either unilaterally or with the operators.

Some operators expect that as soon as Harry Moses takes over as the top industry representative, some sort of semi-understanding on production may emerge. Moses is a long-time personal friend of Lewis.



1922 Southern Pacific's silvery Daylight first made the San Francisco-Los Angeles run 18 years ago. The train's silver gray paint was supposed to reflect sunlight, leave passengers in cool, if un-airconditioned, comfort.

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**ENGINE FAILURE DELAYS
COMMUTER TRAINS**

TO OUR PENINSULA COMMUTERS:

**FREIGHT TRAIN MISHAP DELAYS
COMMUTER TRAINS**

TO OUR PENINSULA COMMUTERS:

We regret that a number of peninsula commuter trains were delayed this (Friday) morning. The delays varied from 7 minutes to (in one instance) 34 minutes.

**"UNUSUAL WEATHER" HAS AFFECTED
PENINSULA SCHEDULES**

To Our Peninsula Patrons:

While we are not publicizing the fact generally, being good Californians, we have been having a lot of "unusual weather" in the Bay area lately, with exceptionally low and heavy fog. This has been a handicap in keeping peninsula trains on time.

While our crews know the location of the signals governing train operation, it is necessary to approach them at slow speed when fog cuts down visibility and prevents an advance view of the signals. And when speed is reduced approaching signals the sustained speed required for regular schedules under normal conditions cannot be maintained. That's why on time performance of peninsula trains recently hasn't been so good.

We stress "Safety First" in our train operation and I am sure all of you will agree that it is better to take the safe course and be cautious rather than take the chance of running through a "stop" signal.

Please consider this comment on the weather as confidential among home town residents.

**CLAUDE E. PETERSON, Vice President
System Passenger Traffic**

S-P The Friendly Southern Pacific

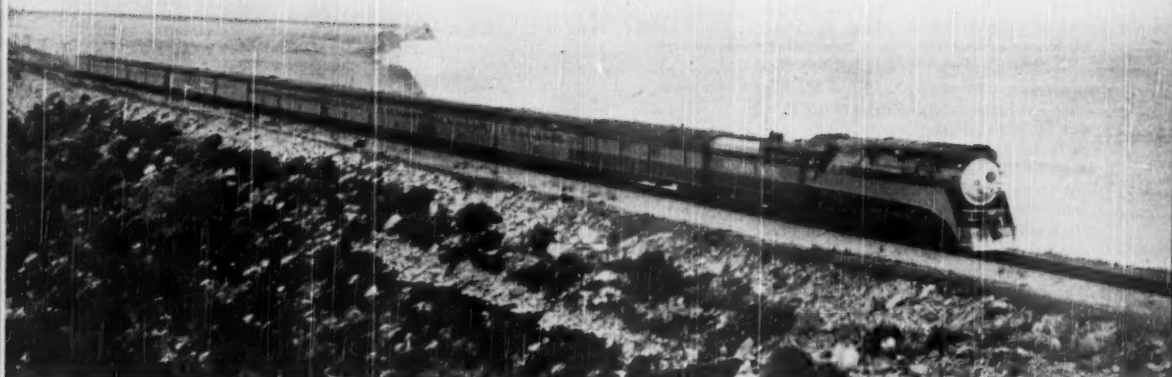
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COMMUTERS Explanatory cards turn up on commuters' seats at night if morning trains were late. The railroad is usually very frank about what caused the delay.

The Southern Pacific And the Public Eye

There is hardly an adult Californian alive who, sometime or other, hasn't ground his way up a long hill behind a truck—to be taunted at the top by a Southern Pacific poster reading "Next Time Try the Train." Usually he just grins. But the message, SP is sure, sinks in.

A. T. Mercier, company president, summed it up when he said, "Ulti-



1950 The Daylights, now painted orange and red, were streamlined in 1937. Today the Southern Pacific runs Daylights north from San Francisco to Portland, south to Los Angeles on both coastal and inland routes.

NEXT TIME TRY THE TRAIN



Next time - try the train

Safe

S-P The friendly Southern Pacific



**Next time
try the train**

COOL

S-P The friendly Southern Pacific



AUTO COMPETITION

A motorist bucking his way through California traffic is seldom out of sight of SP's message, "Next Time Try the Train."

mately public opinion . . . will determine whether or not we stay in business." Lots of railroaders have said the same thing; Mercier seems to mean it.

Mercier was, and is, quite sure that, though the revenue may be in the freight, the public judges a railroad by its passenger service.

Claude Edward Peterson (see cover), the man in charge of SP's passenger

relations, is pretty sure he has made friends for the railroad. Peterson is vice-president in charge of passenger traffic, a gregarious and friendly man who spends a large part of his time riding on trains and talking to passengers.

Advertising and all company promotion material is written deliberately in a friendly, even casual, tone of voice.

AIR COMPETITION

When airlines ran fare comparisons that SP felt were misleading, the railroad came back with some gentle kidding of its own.

SP's slant is that most news and much advertising leaves people weary and nervous. So SP tries to hand out good humored, even humorous copy.

Claude Peterson insists that every letter about passenger service get an immediate answer. He signs as many as possible himself. Once a month copies of the letters are bound in a book and circulated around the sys-



NW 14

"Mommie, why didn't we come ALL the way in this bus instead of just MOST of the way?"

tem among all general passenger agents. The books are must reading.

Peterson, and the SP, are fairly optimistic about passenger business, more so than most eastern roads. The West's industrial and population boom has a lot to do with this. Between freight and passengers, SP is taking in about twice as much revenue now as in 1940.

On the passenger side, Southern Pacific's new equipment helps. The railroad has spent \$35-million since the war on new passenger equipment, and each new train helps build up the system-wide load factor. Last July SP put on an all-coach streamliner between San Francisco and Portland, the Shasta Daylight. It has 442 seats. On the average day since then, 418 of them have been filled. System-wide, SP's load factor is close to 75%.

At present, coach and tourist-class traffic bring in 70% of Southern Pacific's passenger revenue, which explains some of Claude Peterson's enthusiasm for coach streamliners.

Two weeks ago, on an overnight trip to Los Angeles, Peterson passed up the plush, private-room Lark, took the all-coach Starlight and sat up all night. Several times he has ridden the new Shasta Daylight to Portland and back, just talking to passengers. This habit of personifying "The Friendly Southern Pacific" has a grip on him now:

"Coming back on the Lark last night," he told a friend, "I couldn't even get four people together for a rubber of bridge in the lounge car. Everybody was in his room. On a coach train I wouldn't have had any trouble."

Not all of Southern Pacific's passenger trains do as well as the inter-city streamliners. SP has just about the same headaches that other roads have with commuter service. Peterson, a commuter himself, sometimes finds he has to meet this problem head on. He lives in suburban Palo Alto, commutes daily to his San Francisco office. In order to expose himself to as many commuters and train-crew members as possible, Peterson rides different trains on different mornings—climbing on one morning at Atherton, the next morning at Menlo Park, in between times at his home station, Palo Alto. Commuters by the dozens know him well enough to kid him when the train is late.

Lately, Peterson has had to defend the SP from sharper commuter criticism. In 1948 SP boosted commuter rates 124%; it is now asking for an additional 24%. When a group of commuters organized to fight the fare increase and decided to ask their fellow-riders for funds, SP didn't forget its public relations. It offered to have the anti-SP waybills distributed on its trains by SP redcaps.



Rubles Buy More, Steal More

Net effect of Russia's currency finagling: a boost in living standards for home consumers, more milking of satellites, an eventual ruble area like the sterling area.

Moscow's hocus-pocus with the ruble looks like a carefully planned move in Russia's economic warfare. Its first effect will be a modest improvement in the living standard of Russian workers. Its long-run result could be the formation of a ruble bloc that would give Moscow an even tighter grip on the satellite countries than it has now.

Actually, the ruble reform has two separate parts. They are largely independent of each other.

Part I: upward revaluation of the ruble. Henceforth, says the Kremlin, Russian currency will be quoted in gold instead of dollars—at an official exchange rate amounting to 4 rubles to the dollar, instead of the old 5.3. Moreover, the special diplomatic rate of 8 to 1 will be abolished after the middle of the year.

Part II: a series of price cuts. These apply to 234 different classes of goods and range from about 15% to 40%.

Within Russia, these price cuts represent by far the most important part of the monetary reform. Unless they are offset by quantity limits or other restrictions they mean a real rise in the standard of living of the ordinary Russian worker.

• **Starting Point**—To understand just how this works, you have to go back to December, 1947. That was when the Soviets established the foundations of their price policy for food and consumer

goods (BW—Dec. 20 '47, p. 20). At that time, the U.S.S.R. adopted a unified price system to replace its previous dual system of low ration prices and high nonration prices. Simultaneously, it abolished rationing and wiped out the great bulk of the people's savings by ordering conversion of the outstanding currency at the rate of one new ruble for ten old ones.

Since then, price planning has been a comparatively simple matter. With savings washed down to inconsequential size, current income determines buying power. The government's only problem is to adjust prices so that the total value of the goods available for sale is roughly equal to the value of current income.

• **Substantial**—There have been four price reductions since 1947. But the latest is by far the biggest and broadest. The cuts are substantial, and some of them apply to items basic to the Russian standard of living. Rye bread, for instance, is cut 25.9%, cotton textiles 15%, salt 40%.

Cuts as broad as this suggest that there has been some increase in the amount of food and consumer goods available for the comrade in the street. The occasional statistics that dribble out of the country reinforce this conclusion. The grain crop is officially reported to have risen from 65-million metric tons in 1945 to 120-million in

1949. Livestock numbers are increasing. Cotton cloth output is up from 1.7-billion meters in 1945 to about 3.7-billion meters in 1949.

• **5¢ or 25¢**—As far as economics are concerned, there is no reason at all why these price cuts should have been coupled with the jiggery-pokery about revaluing the ruble. The ruble never gets outside Russia, and hasn't since the Bolsheviks came in. If it did, the free markets of the world probably would price it closer to a nickel than the 25¢ the Kremlin claims for it.

Nevertheless, the ruble revaluation could be a preliminary move in organizing the satellite countries into a single economic unit, as far as their dealings with the rest of the world are concerned.

This would fit in with long-standing Moscow policy. Russia plainly intends to treat her junior partners as colonies. And financial exploitation through a central mechanism is a basic feature of colonialism.

Already there have been reports that Russia is selling the whole Rumanian grain output in the world market. This could be another step toward formation of a ruble bloc and a central clearing bank.

• **Rubles for Dollars**—As it is now, the satellites still trade with the West, though an increasing proportion of their commerce is with Russia. But say that Russia decided to have everything clear through Moscow. Then the satellites would still sell to the West, but Moscow would get the dollars or sterling that they earned. The satellites would get only ruble credits. To buy outside the new ruble bloc, Czechoslovakia, for example, would have to get a grant of foreign exchange from a clearing bank in Moscow.

Obviously, such a system would tighten Russia's economic grip on the satellites. And the net result would be to raise one more barrier between the West and the countries beyond the Iron Curtain.

• **Fewer Goods**—Even without setting up a clearing bank, Moscow stands to gain by changing the terms of its deals with the satellites. The ruble has been revalued vis-a-vis their currencies as well as vis-a-vis the dollar. Hence, the satellite countries stand to get fewer Russian goods in return for what they sell to Moscow.

Much of Russia's trade with the satellites is on a bilateral basis, with exports balanced against imports. Values are figured in terms of prices in the country of origin and the going rate of exchange between the ruble and the satellite currency. Thus, a rise in the ruble means a rise in Russia's prices to the satellites. And that means they get the short end of the stick in any future bilateral deals.

Plane Deal

Eastern, TWA give Martin a shot in its sales arm, buy 65 new 4-0-4 two-engine, 40-seat transport planes.

Eastern Air Lines and Trans-World Airline last week agreed on a package purchase of \$35-million worth of new Martin 4-0-4 twin-engine transports—30 for TWA and 35 for Eastern.

It took months of negotiation. But by buying the planes together, Eastern and TWA got a unit price that neither airline could have had individually. Price figures out around \$540,000 a plane—a good buy on today's aviation market for a brand new, 40-passenger, 300-mile-an-hour plane, with pressurized cabin for efficient and comfortable high altitude operation.

Delivery of the 4-0-4s is scheduled to start in the spring of 1951. But TWA made another side-bargain with the Glenn L. Martin Co. which will give it some improved interim planes until it can get 4-0-4s.

• **Interim Deal**—Martin has agreed to lease to TWA 12 of its nearly completed earlier 2-0-2 transports without pressurized cabins. It got stuck with them when some other customers canceled their orders. These can be finished quickly and the first is expected to be available to TWA by the middle of this summer, with all of them in service by fall.

The 2-0-2 cabin is 30 in. shorter than that of the new 4-0-4, and it has only 36 seats. But basically the two planes are similar except for cabin pressurization and a slight increase in engine power and efficiency in the new one.

Like all new conventional-powered transports, the 4-0-4 is designed for simple conversion to jet power. As far back as 1946, Martin developed a transport design which it called the 304, designed to be powered with General Electric's TG-100 gas turbine turning a propeller. This never got past the drawing boards. But much of its design was used in the airframe of the 4-0-4; so the 4-0-4 is ready for turbine-propellers whenever they are commercially available.

• **Martin Boost**—The sale was the biggest involving U.S. twin-engine transports in three years. It put Martin solidly back into the transport business after many aviation observers had decided that Consolidated Vultee Aircraft Corp., principal Martin competitor in the postwar twin-engine field, was way out of sight in front. Box score before the new sale was: Convair, 115 postwar transports sold; Martin, 25.

C. C. Pearson, Martin's president,

credited with a large share of the selling job on the 4-0-4, wasn't content to rest with this deal. Last week he was cying other airlines as prospective buyers of his new plane, hoping to augment the small profit he took on the 65-plane deal.

Consent Decree Ends Color-Film Antitrust Suit

The government's antitrusters have completed their job on motion-picture color film. The finale came last week when Technicolor, Inc., and Technicolor Motion Picture Corp. signed a consent decree in a Los Angeles federal court. Burden of the agreement is that from now on Technicolor will:

• **License** all its patents on its color-film process to all comers (92 patents on a royalty-free basis, 60 on a royalty basis).

• **Make available** complete technical information on Technicolor equipment and on the processing of color film.

The first phase of the two-and-a-half year suit ended late in 1948 and Eastman Kodak signed a consent decree whereby it agreed to open up its color-film process to any would-be licensee. The government had charged that by a series of agreements between the two companies, Eastman gave exclusive use of its color patents, new developments, and technical information to Technicolor.

• **Little Change**—Actually, Hollywood isn't stirred up much by the latest development in the case. Even with Technicolor's storehouse of knowledge available for the asking, no major studio—in these days of strict economy—is willing to lay out at least \$2-million for a pilot-plant duplication of the Technicolor process.

There's an added deterrent as well in the new color films and color-film processes that have hit Hollywood recently (BW—Oct. 29 '49, p. 24). Particularly noteworthy are the Eastman and du Pont offerings—so-called negative-positive types of film that can be shot in regular black-and-white cameras and require relatively simple processing afterwards. Then there's Cinecolor, an older contender in the field, that expects to offer its new three-color film at about 5¢ a ft. for release prints as against Technicolor's charge of slightly more than 6¢ a ft.

• **Fair Prospects**—Nevertheless, Hollywood expects that Technicolor will roll merrily along for some years yet. The company says that it can bring down the price of its finished prints as low as 4½¢ a ft. to meet the competition, and it has expanded plant capacity until it can process 320-million ft. of film a year.

Pricing Act Ahead

O'Mahoney bill to legalize delivered pricing and freight absorption comes out of conference. Its chances are good.

After two years of hemming and hawing, Congress is getting ready to pass a bill legalizing an individual seller's use of freight absorption and delivered pricing.

A House-Senate conference committee last week took its second look at the much-amended bill—and sent it back to both houses for a final vote with only one change, to which all concerned are agreeable. The change wipes out an earlier amendment which would have undercut the Federal Trade Commission's power to ban practices which it decides might lessen or injure competition.

• **Key Points**—There are three main provisions of this so-called O'Mahoney bill:

(1) "It shall not be an unfair method of competition or an unfair or deceptive act or practice for a seller, acting independently, to quote or sell at delivered prices or to absorb freight. . . ."

(2) Narrower exemptions protect a seller against charges of unlawful discrimination among his customers if, acting independently, he quotes or sells at identical delivered prices instead of f.o.b. mill; or, if he absorbs freight for a customer, provided that this is done in good faith to meet the equally low price of a competitor.

(3) Even if FTC proves under the Robinson-Patman Act that a seller gave a discriminatory price that may lessen competition, the seller goes free if he can show that his lower price "was made in good faith to meet the equally low price of a competitor."

• **Opposition**—It's this last provision that has stirred up the most opposition. Congressman Wright Patman and Senators Douglas, Kefauver, and Long claim this "hard competition" provision cuts the heart out of the Robinson-Patman Act. Behind them are a dozen minority groups that claim a lot of votes—retailers, wholesalers, labor unions, the National Farmers Union, the co-ops, and others.

The bill has split the Administration wide open. A majority of the FTC members are against it. Antitrust chief Bergson and Attorney General McGrath are for the bill. In Congress, each side has powerful Democrats to spearhead its forces.

Both houses were holding up action to see whether the Supreme Court acts in the Standard Oil of Indiana case. The decision may be the first Supreme

Court interpretation of the meaning of the present Robinson-Patman Act language on "meeting competition in good faith."

• **Odds Favor**—Odds now seem to favor passage of the bill by both houses—regardless of the Supreme Court's ruling—although there'll be at least a pint-sized filibuster in the Senate.

Once passed, the question arises: Will Truman veto? Proponents claim that Dept. of Justice approval of the bill is tantamount to prior White House approval of the measure. Opponents say it's not—and note great significance in the fact that Truman, the ex-small businessman, has been through the wringer and has great sympathy and understanding of the plight of the little fellow.

GM Wins Reversal In Dealer Case

The federal appellate court in Chicago this week lifted a load off the minds of General Motors Corp. executives. The court sent back for retrial a suit that GM had feared would touch off a flood of damage suits by disenfranchised dealers. These dealers have been waiting to claim that GM had dropped their franchises—illegally—because they refused to use General Mo-

tors Acceptance Corp. for their financing.

• **Background**—GM's worries go back to February, 1948, when a federal court in Chicago ruled against it in a suit brought by a former Chevrolet dealer, Fred Emich, of Chicago.

GM had lifted Emich's franchise in 1939 when it discovered that he was routing much of his instalment financing through a personal finance company instead of through its subsidiary, GMAC.

• **Government Suit**—Emich didn't bring suit right away. First the government charged GM and GMAC with violating the antitrust laws by coercing dealers. Eventually it won.

That was dealer Emich's cue to cut in. He filed a damage suit charging that he had lost his dealership because of the very practice the government had attacked.

• **Other Cases**—Emich won his plea—and one of the largest damage claims in Chicago court history—\$1,236,000 plus \$250,000 for attorney fees and expenses.

While GM's appeal has been pending, two actions similar to Emich's have been awaiting trial. And some 50 other cases in various parts of the country have been threatened. Now that the Emich case has been sent back for retrial, GM thinks that most of the others will wither on the vine.



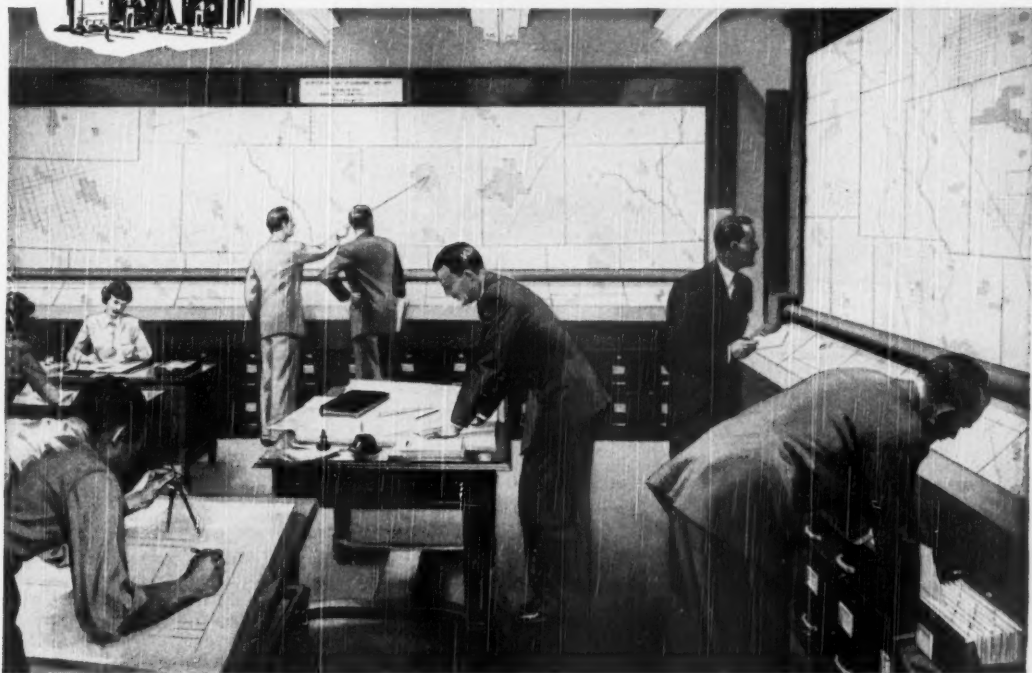
Putting Federal Aid on Highway Map

Glenn C. Richards, superintendent of public works in Detroit, has his say on federal aid for highways. Pending bill would authorize \$570-million a year in federal assistance. New features: \$70-million would be earmarked for the 40,000-mi. interstate trunkline that Congress

O.K'd in 1944—each state's cut based on population; the traditional 50-50 cost ratio would be dropped on this for a 75% federal to 25% state ratio. To speed paving, states could borrow for interstate routes, use future federal allotments to retire the principal.



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This map room is GHQ in Sinclair's search for oil. It organizes the information Sinclair's top production planners need to direct drilling and exploration.

To the map room come reports from Sinclair scouts and exploration parties. Here is recorded the location of every well ever drilled in America's great oil fields . . . of all Sinclair geophysical and geological surveys . . . and of acreage owned or leased by the Company. Essential facts are plotted by specialists on three wall maps—maps so large that unrolled and placed end to end they would

exceed the length of a football field. Supplementing them is a file of almost 3,000 detailed hand maps.

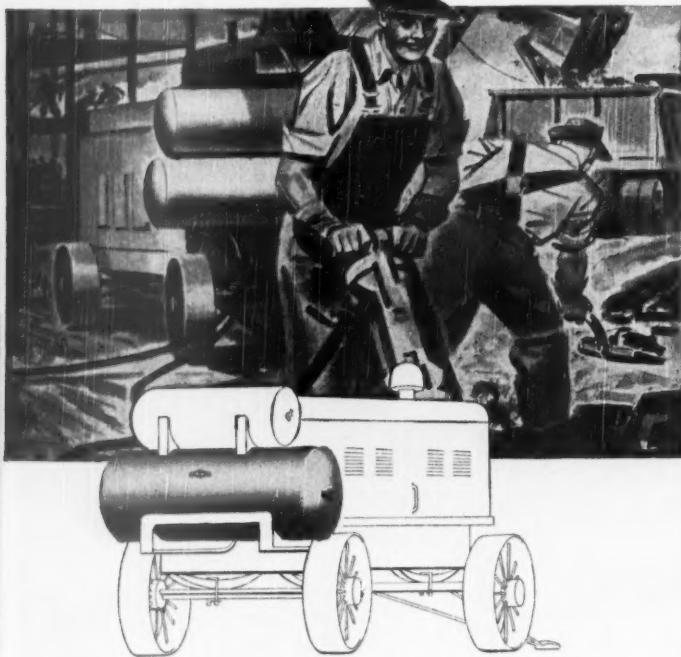
In the next five years Sinclair will be engaged in an intensive program to increase production of crude oil. The map room will be a particularly busy place during that time—another reason why Sinclair is "A Great Name in Oil."

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BUSINESS BRIEFS

Quick death looms for 61-year-old Cohen, Goldman & Co., men's clothing manufacturer (Worsted-tex, Tropitex, Gort & McLeod). The company, which is owned by a group of five men, is liquidating. It shut down three Baltimore plants last week.

National Science Foundation bill got through the House, now goes into conference with the Senate, which voted the research setup last year.

William L. Keady, who quit as president of U. S. Gypsum (BW-Aug. 20 '49, p. 22), this week resigned from another Sewell Avery company—Montgomery Ward. Keady, who was a Ward director, was named president of Marathon Corp. a week ago.

Ohio taxes: In separate ruling the state's supreme court (1) upheld the right of cities to tax income of resident and nonresident workers, (2) ruled Cleveland's Municipal Stadium was subject to real estate tax, thus opened the way for levying on other city projects.

New York Stock Exchange will close Saturdays for only two months this summer instead of four as it did last year. Brokers say too many people want to do their stock shopping on the week end.

Straight whisky's comeback (BW-Sep. 24 '49, p. 48) showed up in production: Straight's share of U. S. bottling went to 18.9%, up from 13% a year ago.

Bell Aircraft's wheelbarrow, the motorized Prime Mover (BW-Jan. 10 '48, p. 39), went west (midwest, that is) with sale of the business to the newly formed Prime Mover Co., Muscatine, Iowa. Bell has airplane contracts now.

Lustron got a reprieve to go on operating for 30 days—under a receiver. The district court named Clyde M. Foraker, ex-chief of the Columbus division of the Bureau of Internal Revenue, to run the show. It also ordered judgment in favor of RFC and foreclosure of the government's mortgage.

Technicolor bought rights to the TV color tube patented last fall by Dr. Willard Geer of the University of Southern California.

Israeli assembly plant was bought by Kaiser-Frazer of Israel, Ltd., a new \$2.5-million company in which K-F has a \$500,000 share.



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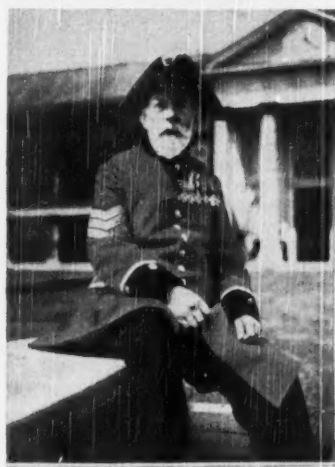
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MOST TOURISTS go to England at least for a few days when abroad, and . . .



FRANCE

ANY YEAR also brings them to France, usually for a longer stay. But . . .



HOLY YEAR of Catholic Church will bring more than ever to Rome.

Europe: They're Standing in Line for It

Holy Year, Passion Play will take 440,000 Americans abroad. Bookings are solid; planning a trip is touch and go.

Western Europe will seem more like the good old days this year than at any time in over a decade. Some 440,000 Americans will make up one of the biggest civilian armies ever to invade the continent and the British Isles. About 135,000 of them will go by plane, the rest by ship.

They will find more goods to buy, more festivals to take part in, and will travel in greater comfort than at any time since before the war. And the dollar-desperate Europeans are all set to do all they can to make the visitors spend more money than ever before. (Last year Americans spent \$190-million in Marshall Plan countries, another \$82-million getting to them. They will spend lots more this year.)

• **Hurry, Hurry!**—By last week, this big surge had made it almost too late for anyone to start planning a 1950 trip to Europe. Most of the space on ships and planes is already booked months in advance.

Reasons for the boom are many and varied, but three of them are basic. First of all is American prosperity. Next



SKIING, or just seeing the Alps, always makes Switzerland attractive. But . . .

comes the devaluation of foreign currency, which—at least in theory—gives the U.S. dollar a greater value abroad. (Many Europeans have compensated for devaluation by raising prices.) The third reason is grimmer: The war scare has made more Americans than ever feel that it's now or never.

• **Attractions**—Beyond these basic reasons are others of equal importance.



PASSION PLAY this year brings greatest tourist travel to Germany since 1934.

The main one is that Europe itself has more attractions this year than usual. Two of these are religious: the Holy Year of the Roman Catholic Church, which will bring thousands more American dollars to Italy than usual; and the Passion Play at Oberammergau. This is the first time since 1934 that the people of that German village have put on their famed, eight-hour perform-



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ance of the death and resurrection of Christ. It will be a strong factor in making Germany's tourist business greater than at any time since long before the war.

This year's travelers to Europe will come from a much broader economic and social range than usual, thanks chiefly to the Holy Year and U.S. prosperity. Nevertheless, at least 50% of the tourists this year will be businessmen and their wives. About 90% of this group will be making the trip for the first time, and will be abroad from 30 to 45 days.

• **Will It Happen?**—Making such a trip, especially for the first time, is a complicated business. Planning for it is a job filled with excitement, disappointment, anxiety—and a recurring conviction that it will never really come off. Here's what one typical businessman went through during just the first phase of planning his trip:

Joseph Shaw, 49, is vice-president of a small metal-working company in Los Angeles. Five years ago he paid off the mortgage on his house. His two sons are grown and have jobs. Joe and his wife, relieved of family and financial burdens, have more time to themselves these days—and several thousand dollars in the bank.

• **Decision**—About a month ago, Joe Shaw decided that it was about time he took a real vacation with his wife. He mulled it over for a while, then last week decided definitely that now was the time to go to Europe. He met no opposition at all, of course, when he told his wife about it. That evening they sketched out roughly their itinerary.

Both agreed that they would sail on the Queen Elizabeth, say around the first of June. They would take their time, go to the places they had always heard so much about—London, Paris, the Riviera, Switzerland. (About 80% of all tourists visit these places.) Maybe they would make a quick trip to Oberammergau to see the Passion Play. That way they could get back around July 4. As they talked, the Shaws felt a growing sense of excitement and adventure.

• **Trouble**—But the adventure didn't start out the way they thought it would. The jolt came when Joe and his wife went to a ticket office to book passage. The Queen Elizabeth was booked solid through most of July. After that, they might get a high-priced first or cabin-class reservation.

"How about other ships?" asked Joe.

"Same story," was the curt answer.

"Well, surely the airlines—"

"Nope, they're even worse. Practically no space at all for the whole summer."

• **Only Chance**—Joe and his wife looked at each other. It had taken only a few

seconds for their trip to vanish into thin air. Then the agent spoke again: "About your only chance is through a travel agency. Go to Thos. Cook & Son or the American Express Co. They are the biggest, and book lots of ship and plane space well in advance of the rush. They may still have something open on their organized tours."

The Shaws dashed to the American Express Co. as though every second counted. Much to their relief, they found that several tours, covering a pretty wide price range, were still open. They took a folder, carefully examined the trips available. Once more their trip began to seem real.

• **Cost**—The Shaws found they could spend as little as \$783 each for a 29-day tour of Holland, France, Belgium, and England. Or they could put out much as \$2,216 for a 72-day tour of those four countries plus Scotland, Switzerland, and Italy.

The latter trip, Joe said, must be only for "the captains of industry," of which he wasn't one. The agency disagreed; lots of people in his category were taking the trip. The captains of industry went in more for swank, 80-day and 90-day cruises—like one that started in New York on Jan. 12.

• **Odyssey**—On that day, the agent said, Cunard's new green liner, the Caronia started on "a fascinating



Aquitania Goes West

Seafarers on both sides of the Atlantic were saddened by the obituary notices of the S. S. Aquitania. The once-proud luxury liner is setting out on her last journey—to the scrapyards on the River Clyde. In her 36 years, the Aquitania carried 1,890,000 passengers in the trans-Atlantic trade, and earned service ribbons in both World War I and World War II as an armed merchantman and troop carrier.

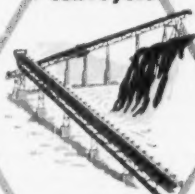
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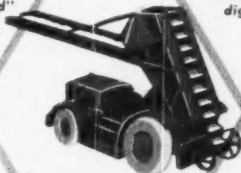


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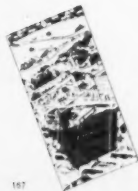
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Odyssey"—a 21,776-mile, 80-day cruise to South America, Africa, and the Mediterranean. Sponsored jointly by Cunard White Star, American Express, and Thos. Cook & Son, the cruise had a minimum price of \$2,400 a person. But the average cost was around \$4,000 a person. Yet the ship sailed with all space taken.

Whether it was designed to or not, this information made Joe Shaw feel a little more expansive. Instead of 30 days, he decided they would take a 44-day trip to France, Switzerland, Germany (Oberammergau), Holland, Belgium, and England. He had to push the day of their departure up a month: The only tour with room for both sailed from New York on July 1 on the Queen Elizabeth. They decided to go tourist class, which would bring the total trip cost to about \$2,400 for both of them. That included passage over and back, meals, transportation, handling of baggage.

• **Advantages**—Up to that time, Joe Shaw, a rugged individualist, hadn't thought in terms of an organized tour. It struck him as too much regimentation. Now he could already see one advantage to it—getting to Europe at all.

The agent quickly pointed out others. He wouldn't have to worry about his luggage; it would be taken care of for him. He would be sure of his hotel reservations every night. He would be sure to get tickets of admission to the Passion Play and other functions that were crowded.

• **Pocket Money**—With all this paid for in advance, Joe Shaw wondered how much money he should take. "We recommend that you take three times what your actual transportation costs," said the agent. "It used to be that each person could bring home only \$100 worth of goods duty free. Now it's \$500. And don't think you won't. I haven't seen a tourist yet who could resist."

"But what is there to buy?" Joe asked. "Lots this year," said the agent. "Woolens, tweeds, blankets in England. The customs inspectors in New York will tell you they live in a world of blankets during the tourist season." He glanced at Mrs. Shaw, then back to Joe. "Maybe you can leave Paris without a corner of your luggage bulging with perfume and lingerie, but I doubt it. And if you're like most men, you'll wind up with a hat for yourself from Bond Street. Then there are night clubs, and souvenirs..."

• **Passports**—"O.K.," said Joe. "I guess you're right. Now what else do we have to do?"

"The most important thing is to get passports."

"Is that hard?"

"No. Easier than it used to be. None of the countries you are going

to require visas any more. All you'll have is the red tape of getting the passports themselves. First, each of you has to get two pictures taken, 2½ in. to 3 in. square. Dig out your birth certificates or other proof of citizenship. Round up a friend who is at least 21 years old and a citizen who has known you for at least two years.

"Take your pictures, citizenship papers, and your friend to the local passport office. Fill out the application, and pay the clerk the fee—\$10. In two or three weeks, you will get your passport through the mail."

• **Other Details**—Before the sailing date comes around, Joe Shaw and his wife will have done a lot of other planning—getting the right clothes, keeping their luggage light but adequate, getting reservations on the plane to New York, and so on. Joe is also trying to find a way to persuade his company to put part of his trip on the expense account. He could do a little business with the company's contacts in France and England that would justify it.

Even so, it is going to cost a lot of money. But both Joe and his wife are sure it will be worth it.

European Boom May Help South America

The 1950 travel boom to Europe has put South America somewhat in the shade—and a little unfairly. Compared to Europe, travel to Latin America this year does look poor. For one thing, you can still get space on ships or planes to get down there and back.

• **Benefit?**—Last week, however, it began to look as if South America might benefit from the European boom. Americans with an urge to travel abroad might not be able to get space to Europe. Or word of the crowded conditions over there may remind them too much of New York's Times Square on New Year's Eve.

Actually, South America and the Caribbean both do a pretty steady business. Travel to South America hasn't slipped off since the war, but it hasn't gained much either.

• **Where They Go**—Most of the South American travel is to the East Coast, served by Moore-McCormack ships and Panagra planes. The steadiness of the trade has caused a lot of recent hotel building in the area. But the Caribbean has really been doing the whirlwind business in this hemisphere. Until the airlines came along, the last wall of tourist resistance had been time and distance. Pan American planes now fly over that wall and cut the problem to nothing. The same thing applies to South America—the shortest round trip takes six weeks by steamer.

how

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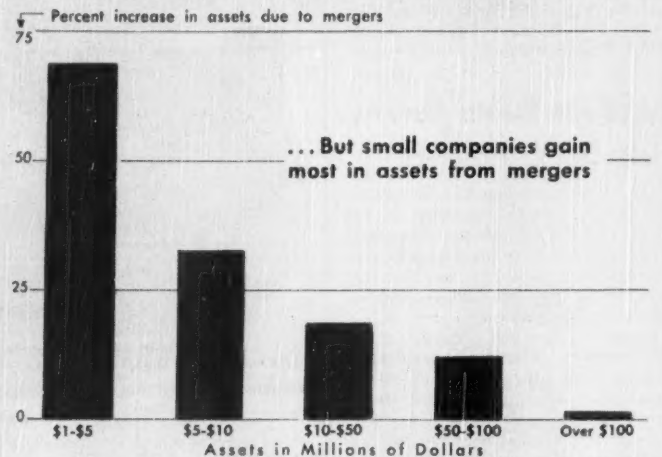
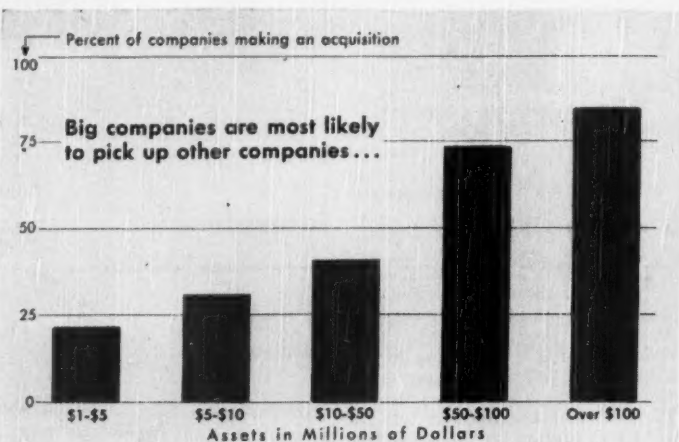
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Data: Review of Economics and Statistics

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Mergers Are Small Potatoes

Harvard economists debunk belief that big companies are growing through mergers. It's the little outfits, they say, that have really gained from them in the last decade.

The notion that big companies have been getting bigger in recent years mainly by eating up little companies is often taken for granted. But two Harvard Business School professors have just given the theory a setback.

John Lintner and J. Keith Butters are publishing the results of an elaborate study of mergers in the February issue of the *Review of Economic Statistics*. They conclude that the little concerns have gained most from mergers.

The economists found that although big companies acquired more concerns than smaller ones did (chart, above), they were so big already that the newly acquired assets didn't make much difference percentage-wise.

• **All Reported Cases**—Lintner and Butters studied all the mergers and purchases reported in financial manuals from 1940 through 1947. They found that assets picked up in this way by all companies with assets over \$100-million

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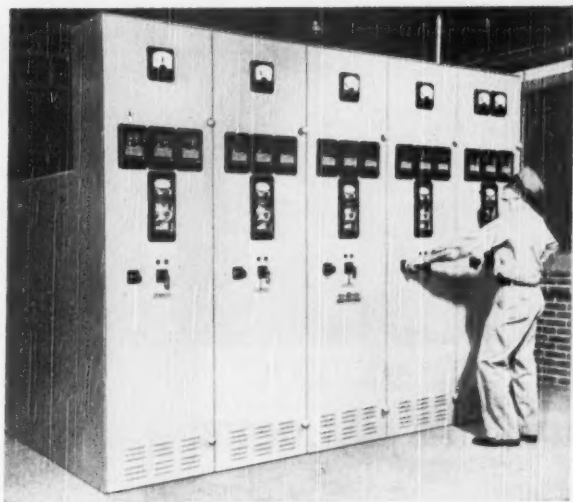
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at the time of acquisition amounted to only 2.1% of their total assets. There were 130 of these giant corporations with average assets of about \$336-million.

These 130 corporations held 42.1% of all industrial assets in 1943—mid-point of the period—and all the assets acquired by them by merger or purchase from 1940 through 1947 raised their share of total industrial assets by only 0.8%.

• **The Good Old Days**—The two economists concluded that the merger pattern has changed from what it was in the two earlier "merger periods" of U. S. history—1875 to 1900, and the 1920's. In the earlier periods big companies merged with or bought other big concerns besides picking up smaller ones. But since 1940 only one concern with assets over \$50-million was acquired.

The economists found that 94% of the companies acquired by merger and purchase were fairly small, with assets of less than \$5-million. But they don't believe this shows small business is on the way out. All it indicates is that there are a lot more small companies than large ones in the economy.

They even believe that some mergers of small companies may have increased competition in industries dominated by a few large companies. For although not as many small companies picked up other companies, their acquisitions were a major factor in their expansion. Only about 24% of the companies with assets from \$1-million to \$5-million bought other companies in the 1940-1947 period. But these acquisitions boosted the worth of the acquiring companies by 68% (chart, page 36).

• **FTC Report**—Some of Lintner and Butters' findings throw a different light on the major conclusions of the Federal Trade Commission's 1948 report on mergers (BW—Jul. 31 '48, p. 24). The FTC report went on the assumption that mergers were rapidly increasing the concentration of industry.

It's true that big companies have grown. But the economists find that nearly all of this growth has come from retained earnings and new financing. For example, in the entire eight years, 1940-1947, the assets that manufacturing companies worth more than \$100-million acquired through merger were only a little more than 50% of the earnings those companies retained in the single year 1947, and they were about 25% of retained earnings for 1948.

These same big companies spent eight times as much on new plant and equipment in 1947 and 1948 as they acquired by buying other companies during the entire eight-year period.

But the Harvard economists don't think that the Justice Dept. and FTC should relax their efforts to enforce

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Example
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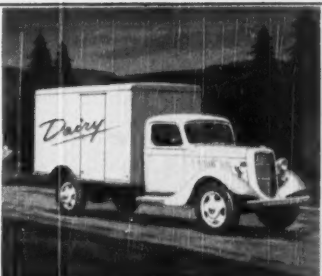
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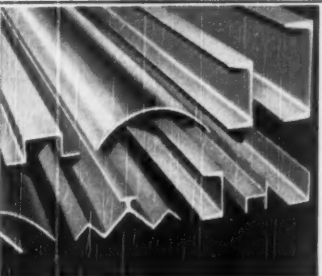
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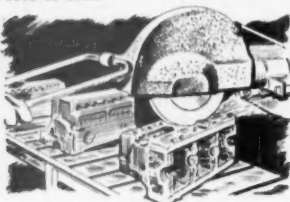
"Super-Sonic Sport Car" designed and built by L. J. Fageol



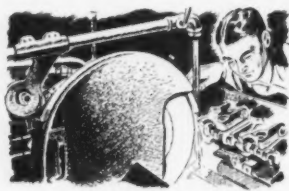
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competition. They figure that these efforts have been one reason why the big corporations haven't grown much from mergers or purchases—they are "acutely sensitive to the threat of antitrust prosecution."

• **2,000 Deals**—The economists found that financial manuals reported the merger or sale of about 2,000 independent industrial concerns, with assets of about \$34-billion, during the eight-year period. But since the disappearance of many small companies went unreported, they estimate that a maximum of 6,500 firms, which have maximum assets amounting to \$5-billion, may have been merged or sold during this time.

This would be only about 74% of all corporations filing income-tax returns for 1943, the midpoint of the period. And the estimated \$5-billion of assets involved would be about 5% of the total which was reported by all corporations which filed tax returns for 1943.

• **Different Approach**—Lintner and Butters believe that the contradictions between their report and that made by the FTC come from the fact that FTC put major emphasis on the number of mergers, while they took into account the sizes of the companies which were involved.

Antitrusters Bear Down On Cases New and Old

Antitrust division of the Dept. of Justice isn't asking Congress for a raise next year. The antitrusters will be happy if they get the \$3.8-million they got this year.

But division chief Herbert Bergson is building himself a record as an efficient trust-buster with the size staff he now commands. Here's the fiscal 1949 "production record" he's displaying:

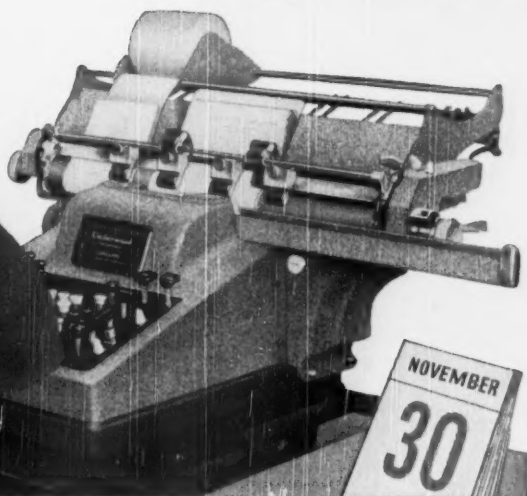
A total of 57 new cases filed, compared with 34 the year before. Out of 58 cases concluded, the division won 46, lost 12. That leaves about 120 cases pending in the courts.

Fines collected: more than \$1-million in 1949, compared with \$382,000 the year before. (Antitrusters figure they could return a profit to the government if they get a law raising the ceiling on antitrust fines from \$5,000 to \$50,000.)

Bergson has put his bigger staff to work covering old ground, too, besides ferreting out new cases. Out of 200 court judgments against business, the division lawyers are giving a close check-up to about 20 of them. Object: to find out whether the companies are really abiding by the court orders against them—some of which were handed down years ago.



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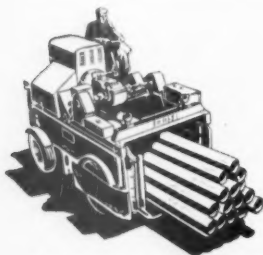


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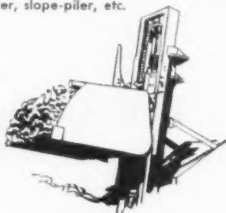


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Crying-Towel

Justice Dept. unit gives legal aid—or a sympathetic shoulder—to small businessmen. It's good "customer relations."

Not long ago a wholesale distributor of hardware in a small western town had a problem: His manufacturer was cutting him off. It seems that a bigger distributor in a bigger town nearby was making a play to take over the line.

So the small wholesaler took his troubles to the Dept. of Justice antitrust division. The antitrusters discovered that the small distributor had pioneered the line in that territory. They helped him carry a strong case to the manufacturer. Now he's assured of his merchandise.

• **Official Comforters**—This is typical of the kind of problems that small businessmen are taking to lawyers in the antitrust division's small-business unit. This little-known corner of the Justice Dept. keeps a stock of crying-towels for small business. And once in awhile it is able to give them more than just spiritual consolation.

The small-business unit was started back in 1939 to help get government and military business for small companies. During the war, it bird-dogged for scarce materials for small fabricators. Right after the war, it gave a lot of free legal advice to veterans who were starting their own businesses.

Then, for a while, antitrusters figured that their small-business unit had outlived its usefulness. They were ready to put its lawyers to work on the battle to bust up the big boys.

• **Here to Stay**—But now it looks as though the small-business unit is here to stay. It fits in perfectly with Truman's current policy of playing up to the small businessman. And by keeping the shop, Attorney General McGrath can show that he is doing his bit to help the cause. Aside from that, the antitrusters figure that it is good for small businessmen to have a place where they can talk out their troubles—keeps them from getting frustration complexes.

If a small businessman comes to the Justice Dept. complaining of restraint of trade or monopoly control by a bigger business, he doesn't get a brushoff just because there are no grounds for legal action. Instead, he is turned over to the small-business lawyers. They see what they can do for the little fellow by persuasion or negotiation. Mostly, this involves acting like a private counsel who knows his client doesn't have a case.

The antitrusters have one or more

*What did you say?
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with all this noise!*

*I said it would be
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Each 12"-square unit contains hundreds of small cylindrical holes drilled in the sound-absorbing material. As sound waves strike the ceiling, they enter the "noise traps" where the sound energy is dissipated.

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You'll be under no obligation to let us answer two executive questions: "What will the job cost?" "How soon can you do it?" For a prompt estimate, or free book on "Sound Control," write today to Johns-Manville, Box 290, New York 16, N. Y. *Reg. U. S. Pat Off.

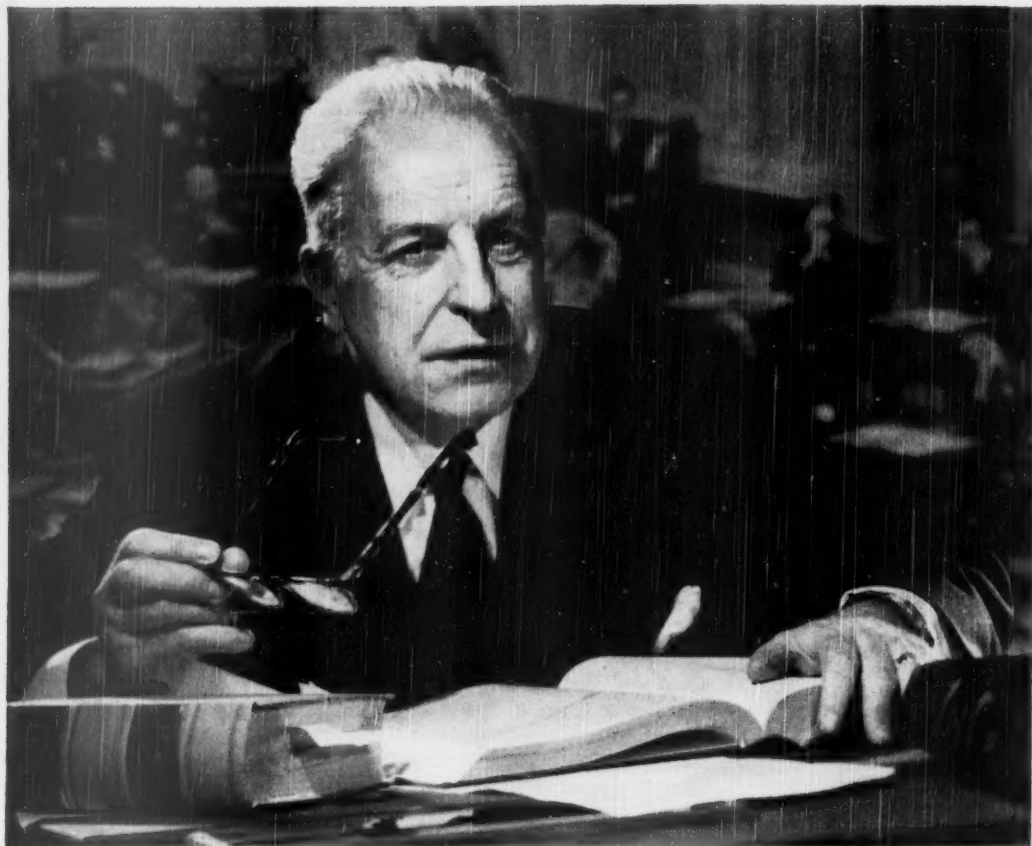


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THE SENATOR HAS A CERTAIN AIR ABOUT HIM

Elected representatives of the people get just as hot as any one else during Washington summers. The problem in the remodeling of the U. S. Capitol Building* was to prevent this discomfort for senators and representatives during Congressional sessions.

The Capitol architect called in a leading consulting engineer, who designed the air conditioning system. Trane equipment was installed to meet the rigid specifications and Washington's humid heat and damp cold.

Today, Congressional sessions are cool... at least, atmospherically. And another problem was solved by the same equipment which makes air more comfortable, usable, efficient, in thousands of offices, stores, plants and homes.

If you have an air conditioning problem—remember Trane. The House of Weather Magic knows how to warm air, cool it, dry it, humidify it, clean it, or move it. Your local Trane representative will gladly work with your own architect, engineer, or contractor.

SKYSCRAPER AIR CONDITIONING. In addition to the type of air conditioning equipment required for large areas such as the Capitol Building, Trane also manufactures UniTrane under-window air conditioners for office buildings, hotels and other structures which are made up of many small rooms or offices.

Occupying but little more space than an old-fashioned radiator, these new units heat, cool, remove excess moisture, filter, and circulate air—provide individual room control. Write for "Merely a Matter of Air."

HEAT FOR THE HOME. Write for "How to Live in June All Winter," containing facts about quick-heating, space-saving, economical Trane Convectors.

*Architect: David Lynn, Architect of the Capitol. Consulting Engineer: Charles S. Leopold. General Contractor: Consolidated Engineering Co., Inc. Air Conditioning Contractor: Mehring & Hanson Company.

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EASTERN MFG. DIVISION • SCRANTON, PA.
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small-business experts in each of their 12 field offices—Boston, Chicago, Cleveland, Denver, Detroit, Jacksonville, Kansas City, Los Angeles, New York, Philadelphia, San Francisco, and Seattle—plus a staff of eight in Washington. That's wide enough coverage to give almost immediate attention to any complaint that comes up. But it's a rare day when the small-business lawyers can work the miracles that the complainants expect.

• **Do Something**—A retailer came in once and wanted the lawyers to tell him how to force a manufacturer to supply him with watches. He said he had been cut off arbitrarily, and couldn't get the watches he wanted from any distributor, either. He was sure there was something illegal about the whole arrangement.

It turned out, however, that the watch was a fair-trade item—and the retailer had been cutting the fair-trade price. So the Justice Dept. lawyers said there was nothing more they could do for him than give him a comforting pat on the back.

• **"No Relief"**—Another retailer—this time a shoe-repairman—complained that a manufacturer no longer would supply him with a line of rubber products that he had handled for years. The manufacturer retorted that he had spent a lot of time and money helping this particular retailer build up his business, then he discovered that the retailer had been switching customers to another brand. This practice reduced the retailer's sales to the point where it didn't pay the manufacturer to carry him anymore.

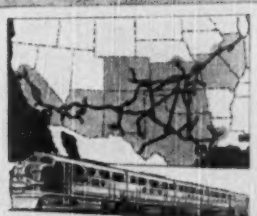
"No relief," was the Justice Dept. notation on this case.

These are typical of hundreds of cases that the small-business unit has handled in the last few years. Despite the fact that so many of them end up marked "No relief," the antitrusters aren't figuring on closing up the shop. They still think it's mighty good "customer relations" to hear the small businessman out, and, generally speaking, to hold his hand.

• **Service**—And occasionally a case comes along where they really score. For instance, a long-time retailer of name-brand appliances discovered that the wholesaler in his territory was taking the line away from him. When he protested, the wholesaler wouldn't budge. So he took his troubles to the Justice Dept.

The small-business lawyers arranged conferences with top officials of the manufacturing company that supplied the appliances. As a result of the talks, the company has created a special committee working full time to investigate complaints from retailers who say they are getting a bad deal from the company's wholesalers.

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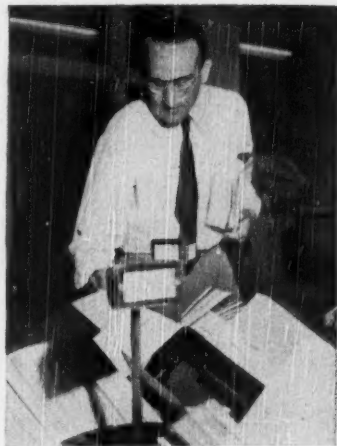


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MANAGEMENT



PROF. GAUMNITZ of Minnesota was interested in the method of management at I-I. Who makes the decisions?



PROF. KAHN of Cornell looked for clues to what makes any big corporation act the way it does.

Three Looks at Harvester

Suppose you took half a dozen college professors, turned them loose on your business for a month, and then asked them what they thought?

You would get surprising agreement on the main points—and immense differences in emphasis and interpretation.

At least, that's the way things worked out when International Harvester Co. tried this sort of experiment on itself last summer.

Harvester took six college professors from various parts of the country and gave them the run of its whole organization. It promised to open all its books, answer all questions, and generally help anyone who wanted to dig where he thought a body was buried.

The professors took this promise seriously. The first day, in a conference with Chairman Fowler McCormick, one of them popped up: "Mr. McCormick, what are those papers on your desk?" McCormick set the tone for the rest of the project by going through his papers one by one and explaining what each was about.

BUSINESS WEEK has talked with three of the professors who went through last summer's session at Harvester. The result is a unique composite picture of a big business from three different and expert viewpoints—a sort of stereoscopic view.

I. The Administrator

R. K. Gaumnitz, the assistant dean of the School of Business Administra-



PROF. AULT of Purdue wanted to know how I-H designers go about keeping their products up to date.

tion at the University of Minnesota, was mainly interested in management problems. He set himself the particular assignment of finding out who makes what decisions in the company. He happens to be a statistician and so had a natural interest in how Harvester used statistics in its business.

Gaumnitz has an "overwhelmingly favorable" general impression of the company. In detail, here's how it looks to him:

The difference in personality between



Moses Farmer Was an Unknown Soldier

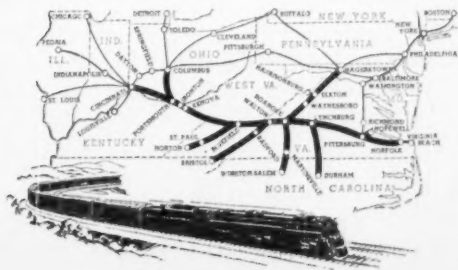
Moses Farmer, a little-known New England inventor, lit his parlor at Salem with incandescent platinum lamps on battery current as early as 1859, well ahead of Edison. He created an early version of the dynamo. In speaking of the telephone, he told Bell's assistant: "I've been close to that thing a dozen times in the past year."

Moses Farmer is a symbol of the untold, unsung thousands of scientists who spend their lives to create something the world needs or improve something it already has. You hear of the Edisons and the Bells, yet for each of these brigadiers of science there are regiments of unknown soldiers who wrestle with ideas . . . who study and search, build and re-build, test

and re-test . . . to create or perfect small things which improve some bigger thing.

In the laboratories and shops of the Norfolk and Western Railway, men labor ceaselessly to improve railroad service. They may work for years to make some device more practical and useful. They may spend months working to save minutes in a shipping operation. When they have completed a task you may not hear much about it — yet its worth is reflected in increased efficiency to help move America's freight faster and more safely.

These men — living in a world of physics, chemistry, mechanics, temperatures, weights, stresses, strains, metallurgy, electricity, hydraulics and electronics — are on the job day in and day out, year in and year out, to help provide better and better service for passengers and shippers of the Norfolk and Western, one of the nation's most strategically located railroads.



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I-H CHAIRMAN—Fowler McCormick talks over fine points of a tractor with engineering teacher Ault.

the two top men of the company is striking. And the way they divide management responsibility makes the most of their strong points.

McCormick is a textbook example of the role of the chairman, "a man of vision but not a visionary." He looks 20 years ahead, considers the broad social implications of company decisions as well as the immediate effects. In setting policy he acts as a balance wheel.

President John L. McCaffrey is the operator. He is decisive, tough. And in most cases he makes the decisions.

• **Who Decides?**—Major questions—the production rate of a product, what to do about more working capital for the Canadian subsidiary—actually are settled at the top. The decisions are not made somewhere down the line and merely passed up for formal approval.

In an executive committee meeting (with the professors sitting in) McCaffrey made most of the decisions then and there.

Important troubles and difficulties quickly come to the top level where they get attention. For better or for worse, "Top management gets down to details when something goes wrong."

At the East Moline plant, for instance, the works manager spent two hours one day running down a shipment of malleable nuts that had been delayed. If the nuts hadn't come through, production of one item would have stopped.

• **No Outsiders**—One of Harvester's fetishes is the iron-bound policy of promoting from within. This has both good and bad features.

Harvester almost never brings executive personnel in from outside. Hence, when a man gets to the \$5,000 to \$6,000 class he acquires a personal security that is almost like civil service. Length of service for Harvester officers commonly is 15 to 30 years. Anyone with less than 10 years rates as a Johnny-come-lately.

One result of this policy is "incred-

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Of course, a finish must do much more than provide beauty that attracts attention on the sales floor. It must provide durability against the use—and abuse—under which the product is expected to stand up and retain its good looks. That's why, so often, a higher priced finish proves a real bargain for manufacturer and user alike.

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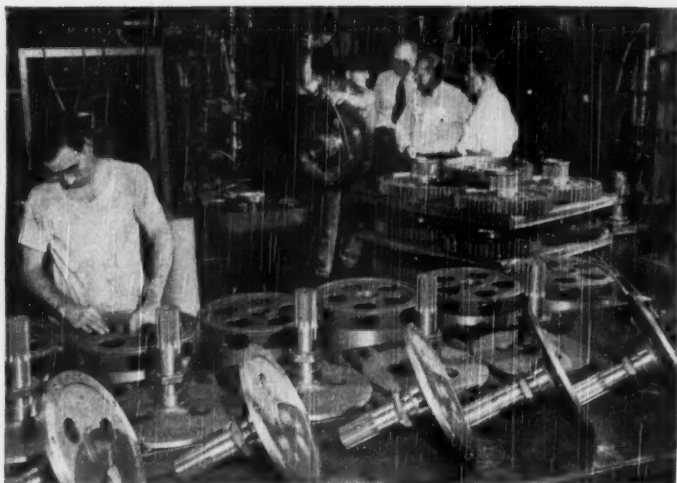
In North Carolina you are within easy reach of the Southeast's more than 30,000,000 people... with a net annual income of more than \$26 billion... in a section whose manufacturing sales total more than \$23 billion yearly with \$17.5 billion added in retail sales... and with an annual agricultural production value of more than \$5 billion. (SOURCE: *Sales Management, 1949 Survey of Buying Power, and Manufacturers Record.*)

To get the facts on the State that offers you "Relative Isolation With Maximum Accessibility to Major Markets" address: Dept. B-3, Division of Commerce and Industry, Dept. of Conservation and Development, Raleigh.



WHERE

INDUSTRIES PROSPER



PROFESSOR Wills of Illinois State and Prof. Gaumnitz (white shirts, left to right) are shown through the tractor works by works manager M. H. Felber (right).

ible loyalty" among executives and junior executives—everyone making over \$4,000 to \$5,000. "They live, eat, and breathe Harvester and their jobs." On a trip to Indianapolis, Harvester men passed the time betting on how many Harvester tractors they would see, how many International trucks they would pass.

• **Stagnation**—There's a possible danger of stagnation in the policy, though. And the failure to bring in talent in the \$8,000 to \$15,000 bracket probably forces the company to get along without as many highly trained technical people as it should have. It should get a top-drawer mechanical engineer, for instance—and a couple of specialists in statistics. There's a tendency to trust experience as a substitute for training.

This shows up, Gaumnitz finds, in the company's statistical procedures. Some of its methods—for example, statistical quality controls—are inefficient and involve unnecessary work. The people handling the statistics don't always understand the underlying theory and the limitations of their methods.

Gaumnitz sees another possible weakness in the tendency to centralize operations too much. In some cases, the home office seems to hold too many strings on plant managers. And sometimes the company merely centralizes operations when it thinks it is coordinating them.

II. The Engineer

E. S. Ault is head of the Department of Machine Design of the School of Mechanical Engineering at Purdue University. He concentrated on the machines themselves and the engineering that goes into them.

Here is his picture of the company:

Two of Harvester's strongest points are its "harmonious teamwork" and the "amazing reasonableness" of its executives. The organization setup seems to be efficient but complex. Obviously it has been given a lot of attention.

The policy of promoting entirely from within is bad for research and technical advances in engineering and machine design. It does produce intense loyalty, but the company also needs the open-mindedness of people from outside. Knowing company policy and company ways of doing things isn't always an advantage. It leads to too many preconceived ideas.

Harvester definitely needs more highly trained technical men in engineering. The company is doing a good job; but it could be doing a better one.

• **Standard**—In engine design, for instance, I-H is using good standard methods. Their hydraulic system is satisfactory, but they had troubles developing it that could have been avoided by better design. A technically trained man from outside would bring new ideas and new methods to the problems.

Harvester also needs more fundamental research. It has a manufacturing research division, but this is snowed under with production problems and troubles that need immediate handling. There is no group of research-minded men giving full time to basic studies of materials, new methods of manufacture, new developments in farm machinery.

The company is doing a good job of improving the machines that it has and redesigning parts. But it should be developing new machines and new processes.

• **Too Patient**—Another angle is that there is no definite training program for

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Here's what we showed one manufacturer about a machinery shipment he was making. By surface transportation it required a crate which added 25% to the weight of the shipment. This made the total cost of the

shipment 16% higher than it would have been by air. Furthermore, transit time was 14 days by surface transport compared to two days by air.

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new employees. Young men kick around in routine drafting jobs too long. Patience is a virtue, of course, but the man who is too patient isn't likely to be brilliant.

There is no central hiring system. Each plant does its own hiring. Thus a college graduate or young engineer who wants to work in farm machinery has to go from plant to plant looking for a spot. As a result, there is no definite program of putting men into the jobs best suited to their abilities and backgrounds.

Handling of customer complaints seems fine—provided the complaint is passed along to the general offices. Sometimes, dealers and distributors let complaints die along the way.

III. The Economist

Alfred E. Kahn, assistant professor of economics at Cornell University, looked at Harvester as a part of the whole U. S. business system. Where Gaumnitz and Ault were mainly concerned with the problems of internal organization and efficiency, Kahn concentrated on the relation of the company to the rest of the economy. He was fascinated by the way Harvester illustrated the problems of big business in its dealings with employees, customers, and distributors.

Here is how he sees the company:

• **Good Will**—There is no doubt about the good will and sincerity of the top management at Harvester. The company is genuinely progressive, anxious to do the right thing in its relations with everyone who deals with it.

In fact, Harvester is one of the leading examples of a company that preaches the "social responsibility" of management. Its officers feel that they stand in a sort of trustee relation to the rest of the economy. They feel obliged to consider the interests of the public in every important decision they make.

• **Vs. Competition**—At the same time, Harvester's officers feel that they are up against keen competition. They argue that they do not have any monopoly power—because other farm-equipment makers are always crowding them hard.

Thus, Harvester is typical of what might be called enlightened big business. Its officers are sincerely convinced that the size and power of the company do not produce any abuses for two reasons: (1) The management acknowledges a responsibility to use its power in the interests of the public; and (2) competition limits the area in which abuses could occur.

These two reasons are not entirely consistent, however. If competition were fully effective there would be no need for management to acknowledge a trusteeship. And if competition is not effective, then there always is the question of whether or not the company's

voluntary benevolence gives the public sufficient protection.

• **External Checks**—In the long run, competition probably does dictate the sort of policy Harvester has to follow. "Yet these forces leave a substantial area of indeterminacy." In that area, Harvester officials think the policy of social responsibility protects the public.

Opposing the Harvester viewpoint are those economists who believe that even enlightened management can't take the curse off bigness. They believe in strong external checks—such as antitrust prosecutions—to keep monopoly power under control. "External restraints, imposed by zealots basically distrustful of management, have helped induce the present sense of public responsibility which guides Harvester policies."

In Harvester's case, the trusteeship attitude of management seems to be working well. But still there are basic conflicts of interest in the company's relations with its employees, customers, and distributors.

• **Dealers**—In its relations with dealers, for instance, Harvester has to see that it gets the most effective kind of representation. The dealer—who may handle other lines besides Harvester—is naturally more concerned with looking out for himself. This sort of conflict can come up even though both the company and the dealer want the same thing—maximum sales.

Harvester is pledged not to crowd its dealers into handling its products exclusively. The top men, at least, are scrupulous about this. But the company also wants dealers to carry and sell all the items in its line that might sell in a particular territory. Hence, local representatives may put the pressure on dealers to take on all the products in the Harvester line—even if the dealer has to drop the products of competitors.

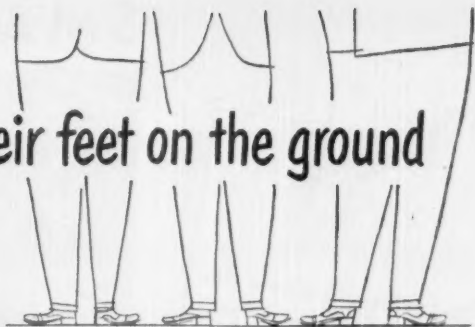
Again, Harvester likes to have its dealers put up their own distinctive buildings outside the regular business district. This is a good selling technique, but it calls for considerable investment by the dealer. And if he loses his dealership for any reason, the building could be a white elephant.

• **Pricing**—When it comes to pricing, Harvester's postwar policies seem to "demonstrate the trusteeship-enlightened-self-interest viewpoint at its best."

But Harvester's ability to follow a small-margin policy depends entirely on high volume. If there is a decline in demand, prices probably could not go down—as they should to increase sales. And the chances are that competition would not force them down. Keen competition among the farm-equipment manufacturers traditionally does not take the form of vigorous price cutting.

The conclusion: "Society clearly needs both the 'external restrainers' and management like Harvester's."

Business Men with their feet on the ground



1. This man is due to make a speech in the morning before a group of his industry's executives. He goes Pullman because he can polish his speech on the way—because, too, he knows dependable railroad schedules will get him where he wants to be safely. The fact is: he's far safer in a Pullman crossing the country than in his own home.



2. This man is doing tomorrow's work today. When he arrives back at the office, his report for the week's work will all be on "wax"—ready for his secretary to take over. He goes Pullman because he knows—rain, sleet or snow—it's far safer than any other way of going places fast.



3. These men are rehearsing their strategy for the sales meeting tomorrow. They go Pullman because Pullman privacy turns travel time into productive planning time. They *know* they'll arrive—because crossing the country by Pullman is safer than crossing the street in traffic. And they'll arrive right in the heart of town, convenient to everything.

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tions convinces them. They know this E.P. equipment they recommend will perform better. Last longer. Save more. Because it's built for your job. Anyone of the thousands of E.P. Users will tell you that.



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CLEVELAND 12, OHIO

•Manufacturers of special rotating equipment•

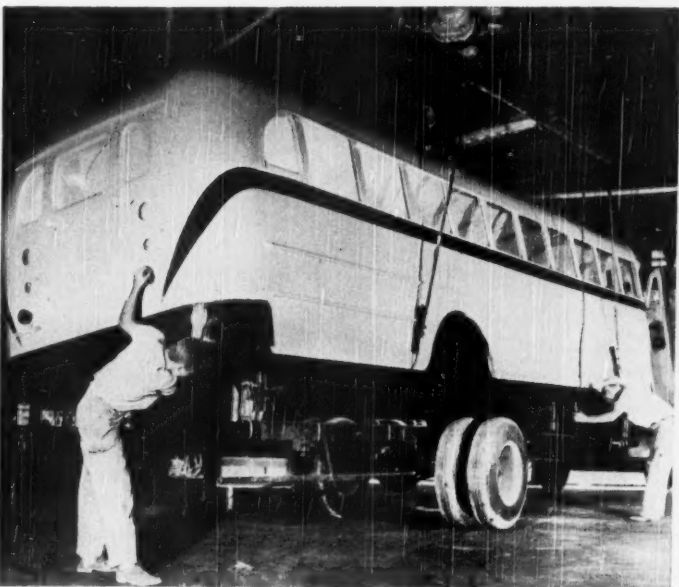
SMALL BUSINESS



FIRST BUS BODY built by Ward was turned in by school district after 12 years. Ward made a present of new body. Relic had single bench along side, chicken-wired windows.

Bus Bonanza From Blacksmith's Shop

In 1936, Dave Ward began making bus bodies in Arkansas smith's shop. Today he is able to roll out 100 bodies a week in one of the Middle South's most modern plants.



STANDARD CHASSIS is used under body, which Ward builds to customers' specifications. Body frames are all-welded construction, made from high-strength steel.

(TURN TO PAGE 58)

The Coal Crisis and Industry-Wide Bargaining

If the coal crisis has served no other useful purpose, it has given one more demonstration of the inadequacy of existing law, particularly in the hands of an unsympathetic administration, to safeguard the public interest in industrial disputes.

A case could be made out for the allocation of responsibility for this situation among several parties. There has been arrogant and law-defying union leadership. Labor-management contracts have included provisions which were unsound and which have now been declared illegal as well. Law-enforcement authorities have failed to take action against these provisions. The President has made every effort to avoid exercising the powers conferred upon him by law for use in just such emergencies.

Underlying all the contributory factors, however, is a collective-bargaining system that has repeatedly shown itself to be dangerous and that cannot be adequately dealt with under existing law. The basic difficulty can be stated in one word: monopoly. The antitrust laws, some of which have been on our statute books for more than half a century, have served their purpose well in preventing industrial combinations to fix prices, limit production, or allocate markets.

But labor-management relations are granted an exclusive exemption from the operation of these laws. The result is that in some industries negotiations are conducted on such a huge scale that work stoppages have ceased to be merely weapons against the parties to disputes and have become weapons against the public.

Industrial management is keenly aware of the danger that the so-called fact-finding procedures espoused by the present Federal Administration will develop into a substitute for free collective bargaining and that, as a result, labor costs and other conditions of industrial operation will become increasingly subject to political domination. Some form of governmental intervention, how-

ever, would appear to be the almost inevitable consequence of a monopolistic regime in labor-management relations.

The case against industry-wide bargaining does not rest upon its advantages or disadvantages to unions or management. The right of industry-wide organization has been strongly insisted on by some unions on the ground that wage uniformity tends to reduce the resistance of employers to union demands. In other cases, however, it has been found to hold down wages in plants where superior efficiency might otherwise result in higher wage rates. It is well known that some employers, like some unions, prefer to combine for collective-bargaining purposes to avoid having their plants struck while the plants of competitors continue to operate.

Such considerations, while not unimportant, go only a small part of the way toward answering the main question, which is whether an unlimited right of combination for bargaining purposes is or is not in the public interest. The coal crisis is the latest in a long series of developments pointing to the conclusion that it is not.

The nation has now had more than enough experience under the Taft-Hartley act to show that the omission from the law of any and all curbs on the scope of bargaining units was an unfortunate decision. Unless the error is rectified, it seems likely that the people will be forced, in sheer self-defense, to take labor-management questions more and more out of the hands of workers and employers, where they properly belong. If this is allowed to happen, the end may well be the destruction of both collective bargaining and free enterprise.

—From an article in the current issue of THE GUARANTY SURVEY, monthly review of business and economic conditions published by Guaranty Trust Company of New York. The complete issue is available on request to our Main Office, 140 Broadway, New York 15, N. Y.

Guaranty Trust Company of New York

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If you have requirements now or in the future for cranes of any size, write for Catalog No. 217 on "Shaw-Box" Full Electric Traveling Cranes from 5 tons upward; and Catalog No. 213C for 'Load Lifter' Cranes of from 1 to 25 tons.

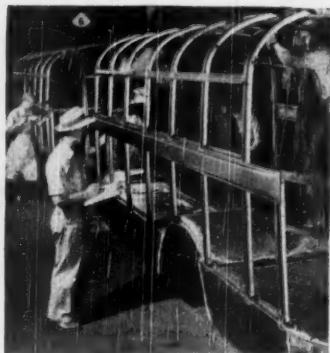


SHAW-BOX Cranes

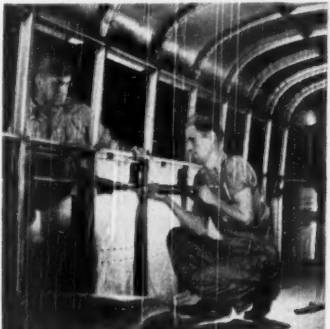
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BUS (Continued from page 56)



SKELETONS for bodies are covered with steel panels, which are riveted into place. Doors are installed later on.



INTERIOR is finished in carbon steel. The bus stood up under a triple somersault off an embankment with 40 people aboard.



DOOR PANEL is drawn on hydraulic press. After drawing, stroke of the press blanks in the windows. (TURN TO PAGE 60)

Lost in the Shuffle

?

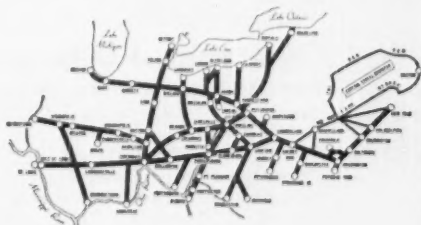


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• Yes, there are thousands of miles of B&O track—and thousands of freight cars passing over them—but your Sentinel car never loses its identity; its position is known at all times.

If the schedule of a Sentinel car is interrupted for any reason, shipper and receiver are notified at once—and informed again of its reforwarding. Plans can be adjusted accordingly—saving time and money. No Sentinel car is ever "lost in the shuffle"—thanks to this *Automatic Records* feature.

Sentinel Service, with its siding-to-siding dependability, is available even if your plant is not actually on B&O lines. It is automatically applied to cars from the time they are received on the B&O. *Ask our man!*



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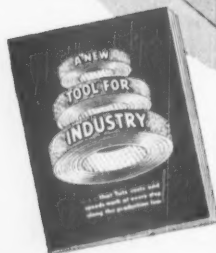
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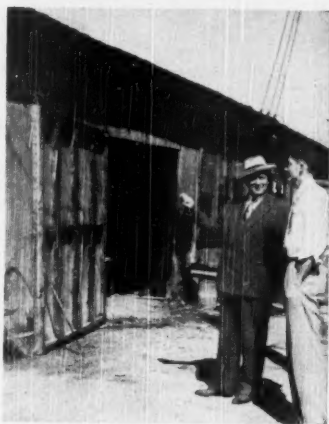
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BUS (Continued from page 58)



SMITH'S SHOP where Ward started had
only about 800 sq. ft. of floor space. Ward's
staff then totaled three.

Hole-in-Wall Hit

Dave Ward's success all
started when he took over a
blacksmith's shop, tried buses
instead of shoes.

When Dave Ward started building
bus bodies, he could carry all his tools
in one hand and all his money in the
other. The first body he turned out, in
1936, came out of a small blacksmith
shop on one of the dusty roads leading
into Conway, Ark.

• **Expansion**—Today Ward is president
of Ward Body Works, Inc., a company
with close to 85,000 sq. ft. of plant
space and a payroll of more than 170
people. Besides the Conway operation,
Ward has a business going in Mexico
and has plans for production in Texas.

What did it? The main thing was
that there was a market—and a good
one—for school buses. But just as im-
portant was the fact that Ward knew
the way to make a sturdy bus body at
a price that was right.

Ward's production line is geared to
a capacity of 100 bodies a week. Ward
has his own baking oven, and his en-
gineers are now working over a contour-
forming machine. An in-plant forming
mill produces cold-formed sections from
the steel that comes down the Mis-
sissippi from Jones & Laughlin.

• **Full Wagon**—Many of the men at
Ward's learned their jobs from Ward
himself. As far as policy goes, Ward
says it's simply the Golden Rule and
remembering "you can't do business
from an empty wagon."

The Mayflower

WASHINGTON, D. C.



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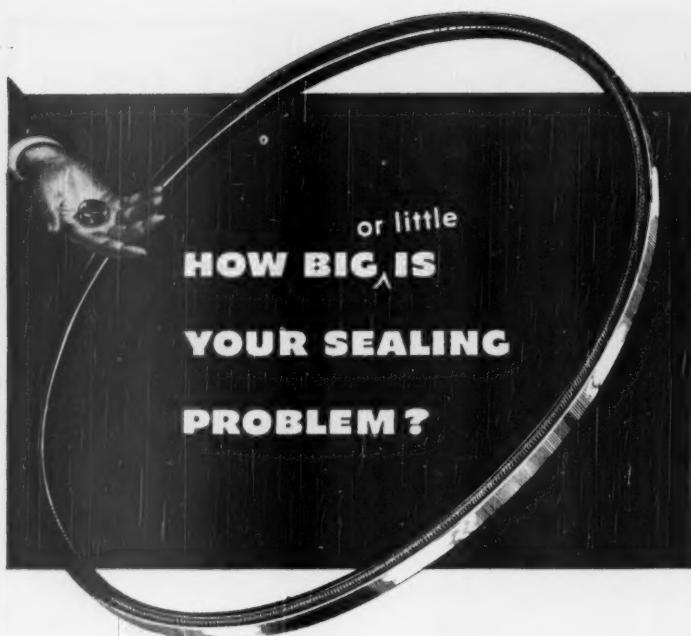


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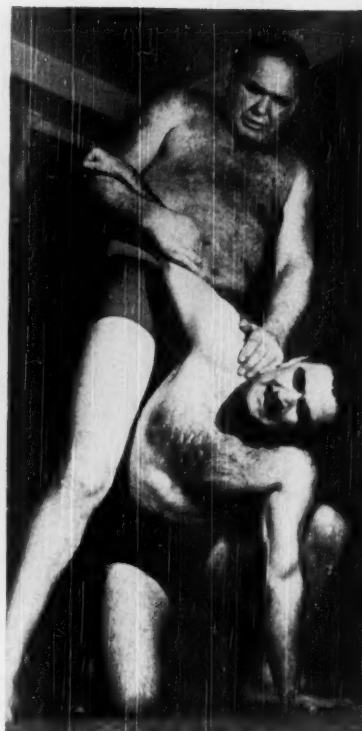
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**HOW BIG IS
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PROBLEM?**

A 48" oil seal for a gigantic steel mill. A dime-sized job for a complex bookkeeping machine. Both were engineered and produced by Chicago Rawhide. Your own sealing problem may be just as unique, and Chicago Rawhide engineers can help you, too. Because Chicago Rawhide is the world's largest producer of shaft-type oil seals, it has vast resources of experience to place at your disposal. When you are planning a new product or rectifying trouble in an old one, supplement your own research and engineering with C/R service. Solving critical sealing and protective problems has been Chicago Rawhide's specialty for seventy-two years, and includes pioneering and development of both compounded synthetic rubber and industrial leather products. C/R will welcome the opportunity to study your needs.

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<p>† Sirvene molded products are all custom-engineered and custom-built for critical service in aircraft, automotive, and other mechanisms.</p> <p>SIRVENE</p> <p>COMPOUNDED SYNTHETIC RUBBER</p>		<p>† Sirvis boots, diaphragms and packings are giving dependable service all over the world under difficult operating conditions.</p> <p>SIRVIS</p> <p>MECHANICAL LEATHER PRODUCTS</p>

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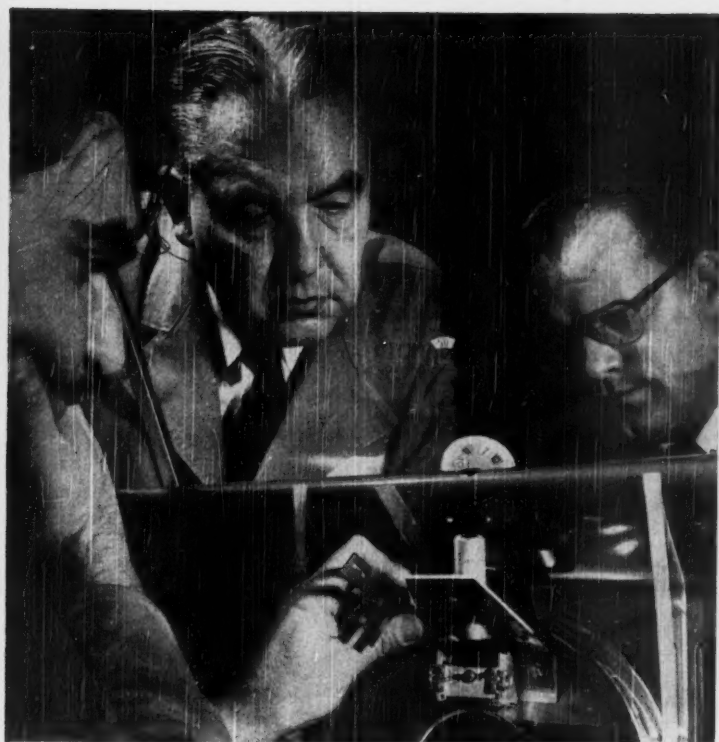


RELAXING: Wrestlers Agisilaki Mihalakis (right) and Wee Willie Davis, when . . .

Grunt & Glow:



HOTEL ROOM was factory in Glowmeter's early days. Wrestler Buffalo Bill Cody (background) sketched; Mike, Wee Willie tinkered at desk. Tools and parts were filed under bed.



ON THE JOB are head and engineer of Glowmeter Corp. On the left, above, Mihalakis masterminds his invention. Reflector screen on windshield tells driver speed (BW—Nov. 19'49, p85).

From Mat to Manufacture

Ex-wrestler sets up shop in hotel room to make Glowmeter speedometer. Detroit is interested—and business expands.



DRAFTING ROOM today is across street from Buffalo (N. Y.) Hotel room, where meter was born. Wrestler friends of Mike put up cash to get Glowmeter started.

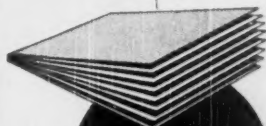


CONFERENCE: Legal adviser George Glauber (left), Mike, and Glowmeter secretary Robert Harrington, Buffalo attorney. (TURN TO PAGE 64)

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Have you admired Slimline
Fluorescent lighting... but
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GLOWMETER (Continued from page 63)



MACHINE ROOM, where inventors, machinists, and wrestlers foregather to build Glowmeter. Bureau-drawer, radiator-top days in the Buffalo Hotel are over.



STAFF HUDDLE: Mike shows how meter would work on Studebaker dash. With speed reflected on windshield screen, there's less eye-shift. (TURN TO PAGE 66)

*Another Example
of B&W Research
for Savings*



Measuring Steam-Power Progress in Millionths of an Inch

Economy and efficiency of steam-electric power generation are closely associated with the steam temperatures and pressures used. Upon these factors in turn, an upper limit is imposed by the characteristics of available boiler and turbine materials. Thus it is that an increasingly closer relationship exists between boiler design and certain branches of metallurgical research . . . that studies in steel ever more closely relate to savings in steam costs.

That its boiler designers and engineers may not be even once removed from sources of these valuable metallurgical data on behavior of metals under all conditions of steam-generating practice, B&W has long operated its own research laboratory. There, among other basic investigations at Alliance, Ohio, are conducted the tedious tests needed to determine "creep" (plastic flow) and stress-rupture limits of

metals at high temperatures, stresses, and pressures. These facilities, recently expanded and improved, are so precise that temperatures are held to plus or minus one degree at 1550 F; so accurate that specimen elongation is measured in millionths of an inch. Data on creep, along with investigations of fuel-burning methods, heat recovery, and boiler design are indispensable prerequisites to further improvement of today's highly efficient, economical steam-electric generating units. That's why in the future, as in the past, B&W will spend still more in helping utilities . . . and their power-consuming customers . . . to save.



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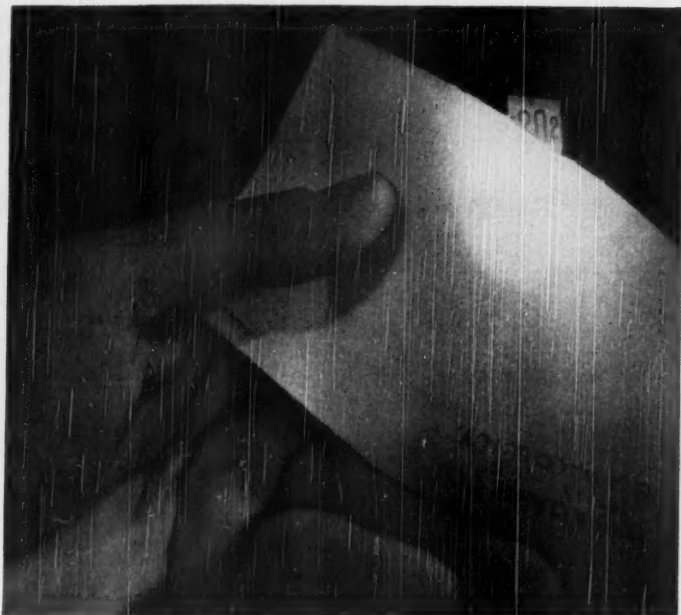
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Company.....

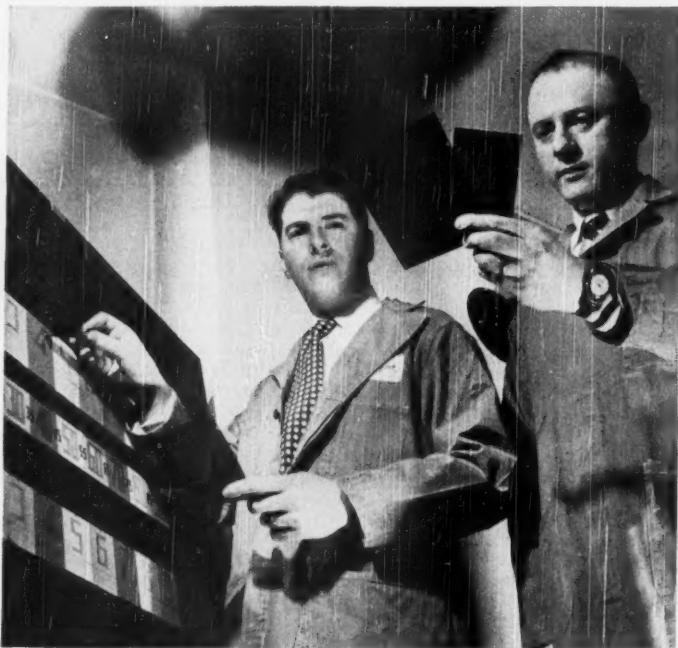
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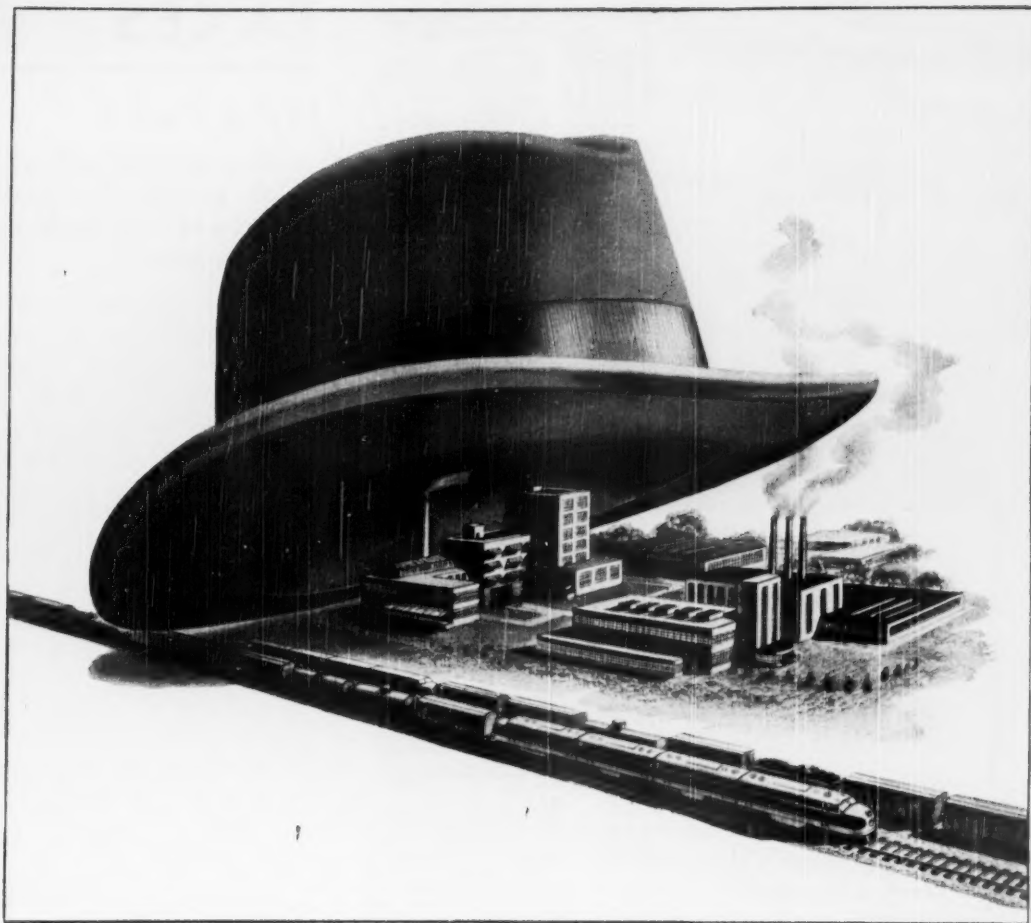
GLOWMETER (Continued from page 64)



SCREEN TEST: Glowmeter is Mike's secret. Speedometer reading is reflected, in test, onto Mike's trick screen and a white card. Flashlight's beam makes reflection invisible on the card, but it still shows plainly on metal Glowmeter screen.



FILM TESTS for speedometer numerals. As car speed changes, meter changes color in warning. Numbers are recorded on film for better projection.



We can't keep it under our hat!

How could we...even if we wanted to?

It would take a "headpiece" as big as the whole Southland to cover the story of the modern South's industrial growth and promise.

All along the Southern Railway...throughout the length and breadth of the Southland...new factories are springing up...existing industries are spreading out...nourished by

the riches in the ground...encouraged by the optimism in the air...stimulated by ever-expanding markets.

No wonder more and more industries are "hanging their hats" in this land of boundless opportunities...the industrial South.

"Look Ahead — Look South!"

Ernest E. Horn

President



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The Southern Serves the South

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The assembly line keeps moving. Founded in 1881, the Tappan Stove Company was first to market a range for use with liquefied petroleum gas... originated the Tel-U-Set assembly, Divided Top, Visualite Oven and other modern features.

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**Is your letterhead
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Whatever your product, it is highly important for your letterhead to reflect the alert, progressive character of your firm. The design of the letterhead, the quality of the paper itself can definitely decrease or increase the impact of the message it carries. That is why so many leaders in their fields, such as the Tappan Stove Company of Mansfield, Ohio, choose Strathmore for effective letterhead papers.

It may be time to review your current letterhead. Is it really current? Does the design properly interpret your firm in terms of today? How about the paper? Does its surface and texture say to the eye, "This company is alert, a leader"? If not, ask the supplier of your letterheads to submit new designs on Strathmore expressive papers.

Strathmore Letterhead Papers: Strathmore Parchment, Strathmore Script, Thistlemark Bond, Alexandra Brilliant, Bay Path Bond, Strathmore Writing, Strathmore Bond. Envelopes to match converted by the Old Colony Envelope Company, Westfield, Mass.

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TAXES

12¢ a Pack?

Boggs bill would cut federal tax on "economy" brand cigarettes from 7¢ to 5¢. But there's strong opposition.

What this country needs is a good 12¢ pack of cigarettes.

That, in effect, is what makers of the so-called "economy" brands have been telling the House Ways & Means Committee; they have been testifying in support of the Boggs bill, which would cut the federal tax on smokes like Avalons, Wings, or Dominos from 7¢ a pack to 5¢.

• **Shapeup?**—If the Boggs bill passed, the 5¢ price differential between the economy brands and such standard-priced leaders as Camels, Lucky Strikes, and Chesterfields would jump to 5¢ overnight. A price advantage of a nickel can make a customer switch his brand where a difference of three or four pennies will not. So the spread would shake up the entire tobacco industry. It probably would force the big three manufacturers to revamp their price structures.

• **Pennies Counted**—Back in the depression, when the economy brands were selling for 10¢ a pack, they accounted for a substantial share of cigarette sales—close to 22% for a while in 1931. Then, as now, the differential was only 3¢ a pack. But in those days a few pennies made a big difference.

Aggressive advertising by the big three and current high-income levels cut the economy brands' share of the market to about 1% last year. It is true, of course, that the market is very much bigger now. But in the face of this expansion, the economy brands have been losing sales.

Now economy-brand manufacturers are looking to the Boggs bill to make the difference between going into the red and hitting the come-back trail. They think that passage of the bill might cut them in for as much as 25% of the total cigarette business in a few years.

• **Tax on Price**—The principle of the bill is simple: It would merely substitute a tax proportionate to retail price for the present flat per-pack levy.

As the law reads now, there is a U.S. tax of \$3.50 on every thousand cigarettes sold—or 7¢ on a pack of 20. This comes to 41% of 17¢—the average selling price of, say, Camels or Chesterfields, before state and local taxes. But on economy brands now

selling for 14¢ a pack, the 7¢ tax amounts to 50%.

The Boggs bill would leave unchanged the present 41% tax rate on standard-priced smokes. But it would cut the tax on economy brands to 41% too—or to 4.9¢ a pack. That would bring the selling price down to 12¢ (not including state and local taxes).

• **Pros and Cons**—Backers of the bill claim that the proportionate tax is fairer. Anyway, they think cigarette prices are too high. And they would like to see more competition in the industry. The big manufacturers are staying out of the fight. Opposition stems chiefly from the Treasury and tobacco growers.

Treasury experts say they prefer the proportionate tax—in principle. But the new rate would cost some \$90-million in revenue in fiscal 1951—at a time when the budget is already way out of balance.

Tobacco planters have testified that a change in the tax will force the big three to turn to cheaper tobaccos to meet the competition. That, in turn, would ruin the market for high-grade leaf.

The makers of economy brands—and there are about a score of them—deny this. They claim that they use tobacco of exactly the same quality as that which goes into the standard brands. As for the effect of competition on leaf prices, they point to the federal crop-support program which guarantees that growers get high prices.

But Bob Doughton, chairman of the Ways & Means Committee, is from North Carolina—a big tobacco state. He could do a lot to keep the Boggs proposal in or out of any tax legislation his committee frames this year.

DRIVING IT HOME

Many employers feel that the periodic withholding-tax statement they give to their workers is just too darn subtle: It doesn't drive home the fact that each employee is helping—with his own hard cash—to foot the bill for federal spending.

One businessman, though, has worked out a really simple way to get the message across. He is Alexander Summer, a real estate dealer in Teaneck, N. J.

Summer pays his employees the full amount of their salaries—nothing deducted. Later, he hands them a bill for withholding taxes and social security. Then, the worker has to dig down and fork over the money.

Summer relies on psychological shock of surrendering the cash to make the workers start thinking. And if enough begin to wonder whether the losses are necessary, Summer thinks there might be some action at the polls.

**It's quieter these days
in DETROIT**

Throughout busy Detroit — in institutions, stores, shops, offices, and recreation centers — acoustical ceilings of Armstrong's Cushiontone® are doing an efficient noise-quieting job.

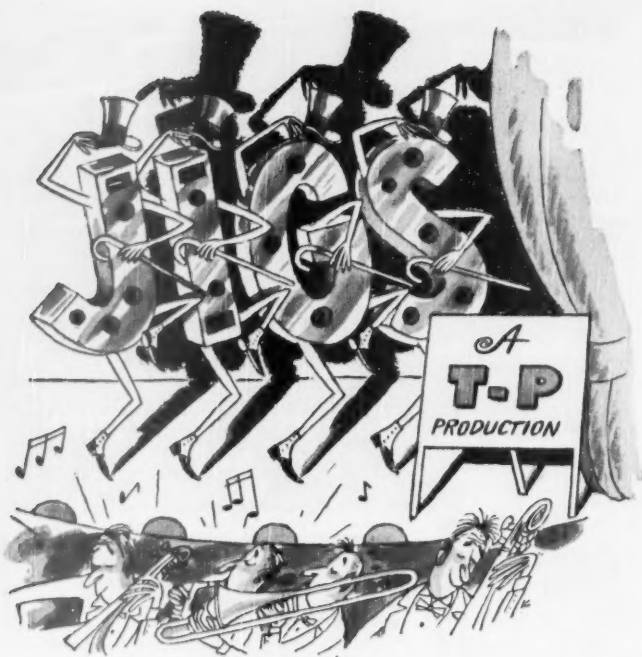
You'll find Cushiontone ceilings in the Briggs Manufacturing Company, the Commonwealth Bank, the F. W. Dodge Corporation, the M. H. De Keyser Company, and many other well-known commercial interiors in the greater Detroit area.

In cities all over America, Armstrong's Cushiontone is meeting the need for effective, low-cost sound conditioning. Cushiontone absorbs up to 75% of all sound that strikes its perforated surface. Cushiontone ceilings are attractive — washable — repaintable — quickly and economically installed.

Free booklet, "How to Select an Acoustical Material," gives full details. Write for it. Armstrong Cork Company, 5003 Walnut St., Lancaster, Pa.

*Cushiontone ceilings installed by
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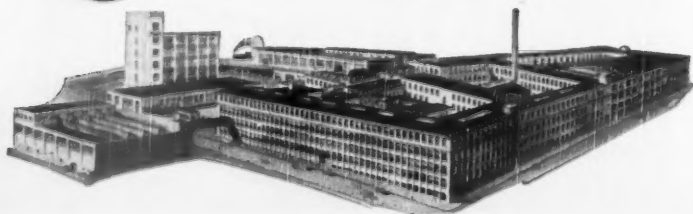
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Whenever you are tooling up for a new model . . . wherever speed is essential . . . *Take it to Taft-Peirce.* We are specialists in contract work . . . accustomed to designing and building the widest variety of jigs, tools, and fixtures in a hurry. What's more, your job will be made exactly to blueprints . . . no grooming or reworking before using.

This big plant . . . 450,000 square feet of working area . . . 1500 machine tools . . . 75 years of experience . . . is ready to go to work for you right now. Our 82 page illustrated booklet, entitled "Take It to Taft-Peirce," will *show* you these facilities. Send for your copy today. The Taft-Peirce Manufacturing Company, Woonsocket, R. I.



For Engineering, Tooling, Contract Manufacturing
TAKE IT TO TAFT-PEIRCE



READERS REPORT:

Noah's Ark—1950

Sirs:

We have been asked by Lester Dill, of Meramec Caverns on Route 66 in Stanton, Mo., to communicate with you. You have been selected as one of the group best fitted to nominate the 10 Americans who, in the event of national destruction by atom or hydrogen bombing, should be given top priorities for protection. They would be the nucleus for a modern Noah's Ark at Meramec Caverns, chosen because their contributions would be most important to a new civilization.

Mr. Dill, as you probably have read in the press or heard on the radio, has applied to the RFC for a million-dollar loan to extend and equip his 26-mile-long cave deep in the Ozarks as an Atom Refuge. Since applying for the loan he has received many inquiries about reservations from various parts of the country.

Who would you nominate for the top men?

ERBE-MAYBRUCK ASSOCIATES, INC.
 NEW YORK, N. Y.

• BUSINESS WEEK hardly feels qualified to make such a grave decision. But we would be interested in reserving a suite for the editorial staff after the 10 priority people are safely underground.

Aluminum Wages

Sirs:

I was interested in your discussion of the aluminum industry and the tariff problem (BW—Feb. 25 '50, p. 132). But your analysis contains one major error. You state that Aluminum Co. of Canada pays an average wage of 90¢ an hour as compared with an average of \$1.53 in the U.S. This is incorrect. The 90¢ rate paid by Alcan is its minimum hiring rate, not its average hourly earnings, and, therefore is not comparable to the average earnings rate of \$1.53 in the U.S.

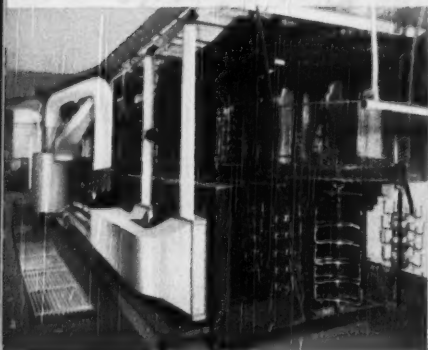
OTIS BRUBAKER
 DIRECTOR, RESEARCH DEPT.,
 UNITED STEELWORKERS OF AMERICA,
 PITTSBURGH, PA.

• The 90¢ average hourly earnings rate BUSINESS WEEK used for Alcan workers is in U.S. currency, not Canadian. According to the Labour Gazette of the Ministry of Labour, Alcan workers put in a 37-39 hour week, have average hourly earnings of \$1.01-\$1.02, Canadian. Take account of devaluation and you have 90-92¢ per hour.



KENTWOOD MODEL BY BISSELL CARPET SWEEPER COMPANY

SWEEPING BEAUTY THAT PICKS UP SALES



Partial view of the Udylite Full Automatic plating unit in use at Bissell Carpet Sweeper Company.

UDYLITE PLATING EQUIPMENT GIVES SPARKLING EYE-APPEAL TO BISSELL SWEEPERS

DURABLE goods manufacturers have long known that a gleaming metal finish provides a lustre that catches the eye and makes a prospect buy. To meet competition they must produce flawless plating in mass volume at low cost.

Bissell Carpet Sweeper Company, Grand Rapids, Mich., achieved this by turning to Udylite. They report—"Our Udylite Full Automatic plating unit has given us greatly increased

capacity of quality plating with a very substantial decrease in cost!"

Your company, too, can benefit from Udylite's unmatched experience and complete line of precision plating equipment and supplies. Call in a Udylite Technical Man. Let him analyze your operation—and make recommendations. There's no obligation. Phone the nearest Udylite representative today or write to *The Udylite Corporation, Detroit 11, Michigan.*

PIONEER OF A BETTER WAY IN PLATING . . .

TESTED SOLUTIONS • TAILORED EQUIPMENT
AUTOMATIC CONTROL IN METAL FINISHING

THE
Udylite
CORPORATION

GOODYEAR INDUSTRIAL RUBBER

-Specifice

HOSE FOR THE CONSTRUCTION

1. Light Duty Water Suction Hose 2. M
3. Heavy Duty Water Hose 4. Heavy Dut
5. Light Duty Air Hose 6. W
7. Heavy Duty Air Hose

Other Hoses Not Shown: Concrete Placing Ho
Filler Hose - Steam Hose - Paint Spray Hose -
Expanding Hose for special concrete molding

FOR HOSE, FLAT BELTS, V-LINING built to the world's h
Goodyear Industrial Rubber Pro

We think you'll like "THE GREATEST STORY EVER TOLD"—Every Sunday—ABC Network

How many kinds of hose to build a skyscraper?



HOSE—a flexible pipe, as of leather or India rubber, for conveying fluids. (Webster's New International Dictionary)

If the people who compile dictionaries would watch a modern skyscraper going up, their definition would be different. It takes only a few minutes' observation as a "sidewalk superintendent" to discover that many varieties of hose are required in construction work alone. In fact, from foundation rock work to final capstone, no less than 15 different kinds of hose may be used!

These "flexible pipes" are made with both natural and synthetic rubber; sinewed with cotton, rayon, even with fibers of glass. Often, they're armored with steel wire, or heat-resistant asbestos. But that's only part of the lesson a construction job carries for lexicographers.

Conveying fluids is one important use for hose on construction projects—and in many other industrial applications as well. But hose carries other materials also—concrete, steam, air, powdered coal, ashes, gases. And for each industrial use of hose, only one construction is right. Only one hose has the ideal combination of natural or synthetic tube, reinforcement materials and covering to give the longest, lowest-cost service on the job. And that's where the G.T.M.—Goodyear Technical Man—comes in.

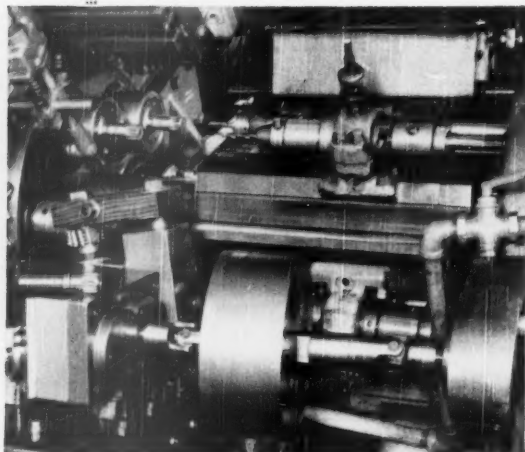
The kind of work, wear and abuse, and the way workers handle the hose are some of the many considerations entering into hose specification. Each separate job needs handling as an individual problem. So it pays to consult the G.T.M. when you're handling a hose-buying problem. From his own personal knowledge of the 800 and more types of hose made by Goodyear, he can help you select the hose that meets the conditions of your job—and assure you of the lowest-cost-in-the-long-run service when you buy. You can get his help by phoning your nearest Goodyear Industrial Rubber Products Distributor, or by writing Goodyear, Akron 16, Ohio.

GOODYEAR

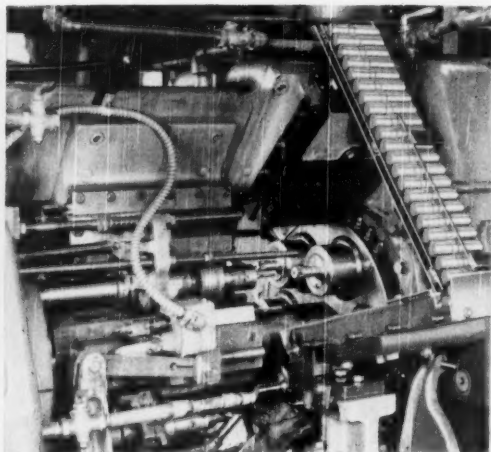
THE GREATEST NAME IN RUBBER



HOW TO SAVE ON SECOND OPERATION JOBS



Front tooling zone, Acme-Gridley bar automatic with special hobbing attachment for machining ratchet shafts.



Rear tooling zone, Acme-Gridley bar automatic with special magazine loader used in machining ratchet shafts.



JOB FACTS

Part—Ratchet Shaft $1\frac{1}{8}$ " diameter x $3\frac{7}{8}$ " long
Material—SAE 1112
Operations—6, including hob 12 serrations
Machine—Acme-Gridley $1\frac{1}{2}$ " RA-6 spindle bar automatic with magazine loading
Machining Time—10.7 seconds per piece

Second operations can sop up a lot of production dollars—unless you handle them right.

The *right* way—the timesaving, money-saving way, is to put them on an Acme-Gridley. Its greater versatility permits the liberal use of independent, power-driven auxiliaries—that combine operations, reduce handling, and cut machine overhead.

Take the ratchet shaft job illustrated, for example. Instead of transferring the part to a hobbing machine after the second operation drilling and tapping has been performed,

the twelve serrations are machined by a hobbing attachment. Result: one less machine, one less unloading and reloading operation. And magazine loading cuts man-hours and production time still farther.

Wide, open tooling zones, close-coupled camming, rigid construction and plenty of power pay off in more good pieces in the pan every time. These are the practical, dollar-saving kinds of results you can expect from every Acme-Gridley. May we give you more facts, stated specifically in terms of your own needs? No obligation, of course.

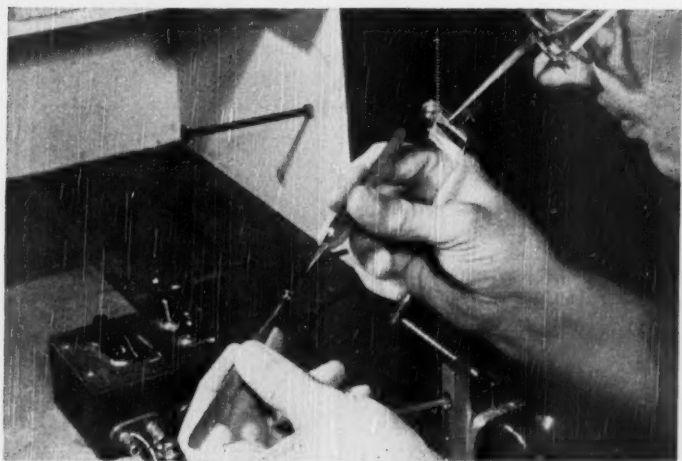


ACME-GRIDLEY BAR and CHUCKING AUTOMATICS built in 4, 6 and 8 spindle styles, maintain accuracy at the highest spindle speeds and fastest feeds modern cutting tools can withstand.

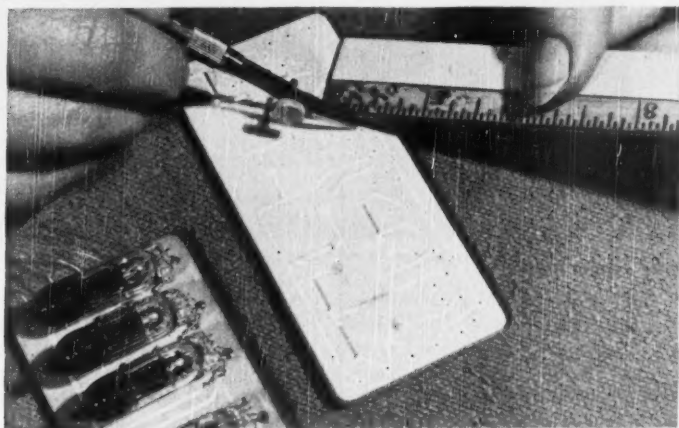
THE NATIONAL ACME COMPANY

170 EAST 131st STREET • CLEVELAND 8, OHIO

PRODUCTION



TINY COIL, smaller than a pencil eraser, carries 1,000 turns of very fine wire. Coil is wound under magnifying glass, will end up in "subminiature" electronic control circuit.



WIRING A CIRCUIT with a ruling pen cuts electronic controls to Tom Thumb size. The pen carries a silver-bearing ink that will fuse to a ceramic plate after heat treatment.

Circuits From Lilliput

Subminiature electronic control circuits do the same job as the big ones, in a fraction of the space. Main use now is military, but development indicates they'll wind up in commercial fields.

"Subminiaturization" is a mouthful, and it's one word that's worth its weight in syllables. Right now it means a lot to the electronic engineer; in the next few years it will mean a lot to industry.

Subminiaturization is the word coined to describe the electronics experts' attack on the perennial problem of every engineer: size and weight. It's

an attempt to pare size of tubes, coils, resistors, circuits to the bone without sacrificing performance.

The fact that it's a hot subject came out in the annual convention and radio show of the Institute of Radio Engineers in New York this week. A good part of the program was devoted to discussions of development work done

for the miniature circuits program of the armed services.

In solving military problems, engineers are doing a job for other industries, too. Compact electronic circuits fit neatly into the production picture for hearing aids, business machines, television, and radio. So far, industrial use has not been extensive, for one good reason. The technique is, for the most part, in the "cut-and-try" stage. Large-scale manufacture is still in the future.

• **Progress Report**—But the engineers are getting along—especially in cutting down size. Weight is a harder nut. Last week, North American Aviation Co.'s aerophysics experts took the lid off some of their laboratory developments. Here's what they have done:

(1) Reduced complicated electronic assemblies to about 1/10th the size of standard jobs;

(2) Produced 1,000-turn coils no larger than a paper-match head;

(3) Figured out ways of "potting" (encasing in a resin) complex groups of parts and wires;

(4) Made transformers smaller than a dice cube.

• **Takeoff Point**—The whole program took off with the guided missile. The "brain" in a guided missile needs from 500 to 1,000 vacuum tubes—in a limited amount of space. (That's equivalent to taking the works of several hundred television sets and stuffing them in a 5-qt. milk can.) A missile in flight has a more complicated job to perform than a radio broadcasting station. It must send out information about fuel consumption, temperature, pressure, direction of flight, drift—and it must be able to receive signals that guide it in flight. So hundreds of tiny electronic "factories" are needed, each picking up a tiny electrical impulse, amplifying it, interpreting it, and then doing something about it. Working on this problem opened the gate to other possibilities.

North American isn't the only company on the job. Other research leaders include U.S. Bureau of Standards, Centra-Lab, Milwaukee, Wis., and others who aren't doing much talking. The Bureau of Standards is working on possible commercial utilization of the technique for all industry; Centra-Lab has done a good deal of work on printed circuits with the idea of commercial use. North American, on the other hand, is sticking to a laboratory approach.

The results—some of them no bigger than a key or a paper clip—would have clear advantages commercially.

• **Potted Assembly**—Look at North American's version of the "potted" packaging of electronic assemblies (picture). The assemblies are encased in plastic that hardens and thus holds them in rigid alignment and, at the

CROTTY BROTHERS

**Manage Employee Restaurants
in 41 Cities...**

Hundreds of thousands of American workers are eating good, hot, nutritious lunches every working day in the Crotty-operated restaurants of companies located in 18 states.

After various trial and error attempts, these companies have arrived at one common conclusion... that it takes restaurant people to run a restaurant. And it is no odd coincidence that each has turned this responsibility over to Crotty Brothers Food Service.

For their employees, this has meant uniformly better meals. For plant managements, it means the saving of valuable supervisory time and escape from all the headaches of restaurant personnel, food procurement, storage, preparation and handling.

For plants employing 500 or more workers Crotty Brothers, Inc. offers a variety of tried and proven professional food services adaptable to every need and purpose. Under the direction of a regional Crotty Supervisor each type of service provides an expertly trained restaurant manager and staff, backed by scientific dietary and sanitary controls and standard operating procedures based upon continuing research.

Many well known manufacturers are among those who speak highly of these services and Crotty Brothers' professional know-how... the result of 20 years of specialization in industrial restaurant management.

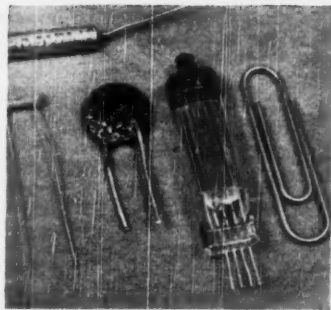
*★ A request to any of the addresses
below will bring a Crotty
Representative to
discuss your particular situation.*

CROTTY
BROTHERS INC.

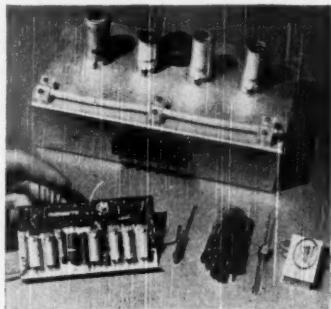
OPERATING IN 18 STATES AND 41 CITIES

137 NEWBURY STREET, BOSTON 16, MASS.
111 WEST WASHINGTON ST., CHICAGO 2, ILL.
303 SOUTHLAND ANNEX BLDG., DALLAS, TEX.

FOOD SERVICE
MANAGEMENT
SINCE 1930



PAPER-CLIP SIZE, subminiature parts fit into guided missiles, hearing aids, business machines.



OLD AND NEW: At top is conventional pulse-coder, at left is new design; tubes are compared at center; transformers at right.

same time, prevents electrical leakage between parts. Such assemblies can have plug-in arrangements for connection to other parts of the circuit.

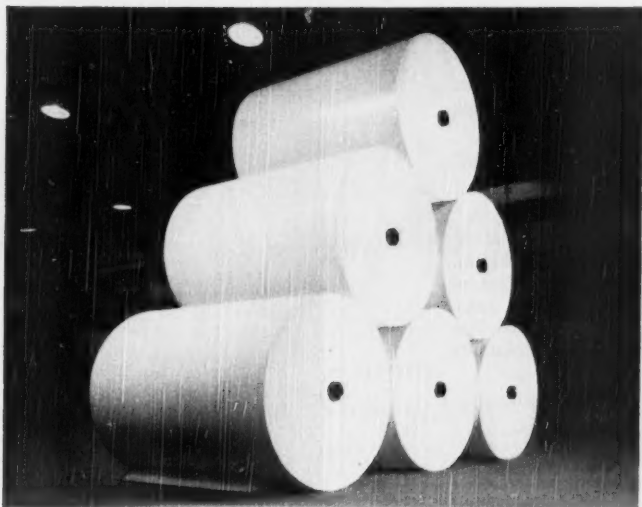
Advantages are obvious. You can't tinker with the circuit; if a part gets out of whack, you just throw the whole thing away—and it doesn't take a technician to do that. There is no maze of wires to trace, no tiny parts to damage in handling. To service, you replace the entire assembly.

• **Printed Circuits**—Printed circuits have good commercial possibilities, too. Because they eliminate conventional wiring, they help greatly in cutting down assembly size. At North American's Downey (Calif.) laboratory, the engineers "wire" their circuits with a ruling pen. They use a solution combining powdered silver and glass, turpentine, and linsed oil. The circuits are drawn with a pen and ruler on a ceramic plate. When the ceramic is refired, the oil and turpentine are driven off; the silver remains to form the wiring. The glass serves as a binder.

For mass production, circuits can actually be printed with ink on a paper stock, just as this page is printed. Printed circuits work just as well as conventional circuits. They have an added advantage to the radio engineer

Now—Kimberly-Clark brings you

Premium Papers at Standard Prices!



FINISHED ROLLS OF 1950 LEVELCOAT — THE NEWEST "LOOK" IN PRINTING PAPER

Now you can make every impression a far better impression — without an increase in printing cost! For Kimberly-Clark's four new fully-coated Levelcoat* papers are made with the new LongLac sulphate fibers — and a new Georgia clay coating formula. Now Levelcoat gives you premium quality press performance and reproduction — at the cost of ordinary paper!

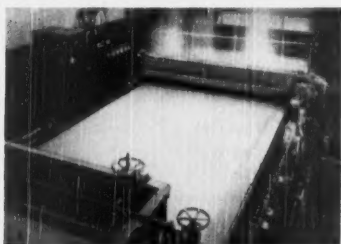
You'll see new whiteness and brightness, feel new smoothness, in all four 1950 Levelcoat papers. In

make-ready, on low or high speed presses, you'll discover new economy and dependability. Finally, in comparing reproduction with that of any other paper, at any price, you'll agree there's a striking new difference in the quality of printing achieved — with less ink — on 1950 Levelcoat.

So regardless of your paper requirements — for long runs or short runs, for broadsides, magazines or house organs — look to Levelcoat for printability at its best.



Stop that log! All improperly barked logs are removed and reprocessed before being used. Only the finest of special ingredients, too, are accepted — like the new, exclusive LongLac sulphate fibers. That's why 1950 Levelcoat is whiter, brighter and remarkably cleaner than ever before.



A sheet of paper is born on the Fourdrinier wire as whitewater drains away. The coating then applied provides a mirror-smooth surface of unusual whiteness, permanence, uniformity. With inks held buoyantly to the surface, type is sharp and clean, colors strong, active, vigorous.



Bright? Right! The brightness test is just one of 79 checks made on each lot of Levelcoat paper. This control system is the Kimberly-Clark way of making sure that your purchase of 1950 Levelcoat gives you the press performance and reproduction of higher-priced paper.

Before choosing any printing paper — Look at Levelcoat

New HIFECT* Made with strong sulphate-cooked fibers. Permanence, foldability, dimensional stability make Hifect ideal for covers or any fine letterpress printing.

New LITHOFACT* For finest offset printing, Lithofect provides a moisture-and-pick-resistant coating with a strong base sheet. Renders colors without loss of density.

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New MULTIFECT* An economy sheet for volume printing. Now, with the new LongLac fibers, Multifect has added strength, better foldability, greater uniformity.

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*TRADEMARK

HAVE YOU THOUGHT ABOUT LOCATING IN NEW YORK CITY?

... then You Should Read This!

Here is an unusual offer to an enterprising, progressive business executive. It is an opportunity to locate your business—either your complete business, or a branch, or your executive offices, or your production facilities—in the heart of the thriving metropolis called New York. But it is more than that too, because . . .

This location is completely unique . . . and of immeasurable value to a forward-looking business organization.

The site is a block-long front at 400 Hudson Street . . . two blocks from a N. Y. Central Railroad freight station, one block from the new Manhattan Motor Truck Terminal, close to all Steamship piers, adjacent to the Holland Tunnel (gateway to New Jersey and points west). For local transportation—all New York City Subway systems, five Bus lines, several Ferries and an Express Motor Highway are close at hand.

These unmatched transportation facilities make the shipment of merchandise easy, flexible and low in cost.

In addition, this site is located in the very heart of an unparalleled labor market . . . tapping the resources for industrial and office workers from all five boroughs of New York City, as well as New Jersey and Long Island.

The site provides daylight on all four sides—a priceless feature for those businesses that require a considerable amount of light. Economical, too!

And, of course, there is the added prestige of having your business located in New York—the style and commercial center of the world!

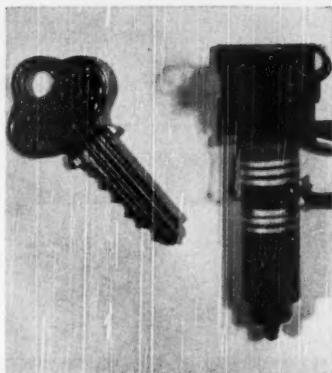
NO CAPITAL INVESTMENT

Our offer is unusual, too, because it calls for *no capital investment!* We offer three alternative plans—take your choice! (1) We will *sell* the plot, or (2) we will *lease* the plot on a long-term lease, or (3) we will *build* to your specifications, in which event we will *operate* the building for you—if you so desire.

Terms surprisingly reasonable and moderate. There's no obligation whatsoever for looking further into this opportunity. This may be exactly what your business needs. For more details, consult your broker or contact the owners—

SUSSMAN ESTATES, INC.

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Vanderbilt 6-2647



TRANSMITTER is smaller than key. Circuit encircles tube. The conventional "small" model is five times bigger.

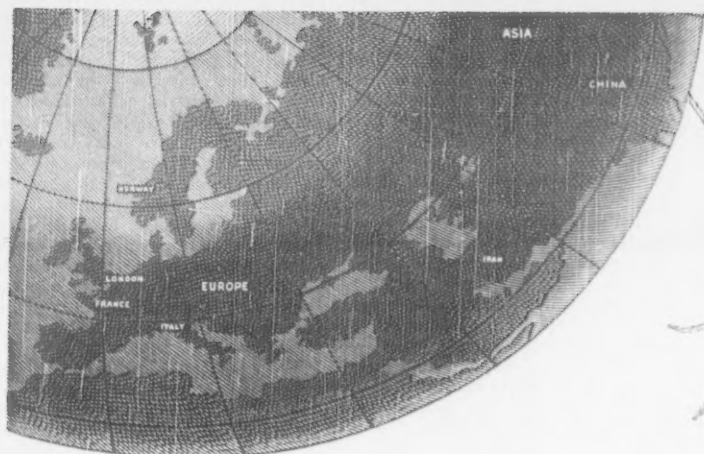


"POTTED" ASSEMBLY, encased in resin, permits crowding of tiny parts, makes servicing easy.

in that they extend the range of frequency over which the tubes can be used. They make for easy duplication and reduce error.

• **Performance**—It's a little early to know just how the performance of the tiny parts will eventually stack up against standard-size electrical assemblies. The situation is somewhat like the early days of radio. Then electrical assemblies were huge and crude. Now more complicated radio works are concentrated in a fraction of the space formerly required. Subminiatures will improve with time. But even now it is clear that smallness itself is no handicap to performance.

• **Hot Problem**—But smallness does bring in some special problems. Right now standard-size tubes have an edge on some miniatures because of the heat dissipation problem. This is one that is bedeviling the engineers in potted assemblies, for one. You get the same amount of heat for a given voltage in a miniature tube as in a conventional-size tube, but it is concentrated in a smaller



Hunger speaks a universal language...

and in many foreign lands, soil fertility
is being increased by the regular use of
International Phosphates

Hunger in human beings and in growing crops
tells its story in clear, universally-recognized
signs—lack of vitality, slow growth, poor color.

In Europe, in the Orient and in the Caribbean countries,
as in America, the basic problem is the same; fertility
of the soil. Farmers in these countries, as here,
are increasing the productivity of their land by the
application of fertilizers made with
Phosphates mined by *International* in Florida.

Fertilization of the soil increases the healthy growth, the
yield, the quality and the nourishing value of crops and it
supplies the phosphorus that is essential in a
well-balanced diet for growing plants and for human beings.

Because of the world-wide demands for high grade
phosphates for food production and for many industrial
chemical purposes, *International's* export
shipments have increased rapidly during recent years.
New mines and plants have enabled *International*
to supply foreign markets and at the same time
to provide larger tonnages for agricultural
and industrial use in America.



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& CHEMICAL CORPORATION

GENERAL OFFICES: 20 NORTH WACKER DRIVE, CHICAGO 6





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Reach the most women... those who buy... in the \$387 million (plus) Oregon food market with The Oregonian. It's your best buy to sell all Oregon. The Oregonian is first in circulation, influence and advertising results.




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HAND LABOR

beautiful...
but costly!



• The Taj Mahal is a beautiful example of hand labor; 20,000 men toiled over it for 30 years. The ugly aspect of hand labor is its cost. Small wonder many plants are installing BUSCHMAN Conveyors... Standard and Special... reporting savings up to 30%. Check inefficient material handling in your plant. Write for complete Catalog.



Buschman
Conveyors

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4477 Clifton Ave. Cincinnati 32, Ohio

area. Thus, main application of the miniatures might be in low-power work, where heat output would be less.

But even here, some progress is reported. North American has developed subminiatures that withstand higher temperatures than standard tubes. One was kept seven hours in a temperature of 450°F.

• **Rugged**—Ruggedness is one attribute of the little parts. North American takes special precautions to make them rugged so they can withstand vibration. But because the parts have less mass and less weight they can withstand more shock. They had to be tough enough to be fired from guns in influence fuzes for anti-aircraft shells.

Present costs of the miniature tubes are rugged, too. They sell for \$3.50 to \$7.50, compared with standard-size tubes from \$1 to \$3.50 and hearing-aid tubes from 75¢ to \$2.50.

Freon Additive Steps Up Refrigeration

When you design a cooling system, you start by picking the refrigerant, the circulating fluid, and then design the mechanical parts to fit its heat-absorbing characteristics. You need to circulate a certain number of pounds every hour in order to pick up the required quantity of heat.

That's good enough until a system intended for 60-cycle electric current must be used in a 50-cycle service area.

Cooling capacity drops under those conditions, because the motors run slower, move less refrigerant.

There's a way out of that dilemma: Carrier Corp., working with Syracuse University researchers, has developed an alternate for the conventional Freon. This new refrigerant can carry more heat per pound than Freon. Placed in a system that has to run on 50 cycles, it brings the refrigeration capacity back to normal. It is called Refrigaloy-1.

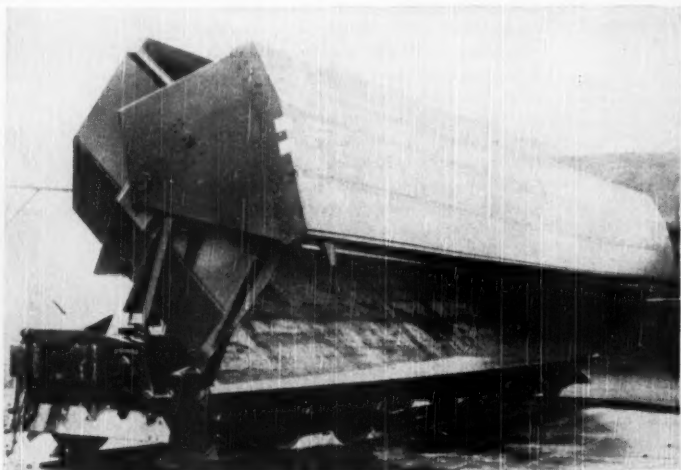
• **Genetron 100**—Last week, the development was announced to the American Institute of Chemical Engineers in Houston. The new refrigerant is a mixture of Freon and a compound called Genetron 100.

The development will help solve the 50-60 cycle problem for existing systems. It will be useful in stepping up the capacity of existing systems. And W. A. Pennington of Carrier believes that it will mean smaller machines for air-conditioning installations.

SPINNING SPEAKERS

To add "realism" to reproduced music, Allen Organ Co. has developed an unusual loudspeaker system. Allen's "Gyrophonic Projector" used two loudspeakers mounted on a rotating baffle board. The effect is to eliminate the "point" source, so that the sound seems to come from a greater area.

The baffle board is rotated by a small electric motor. Current is fed into the two loudspeakers through a slip-ring commutator.



The Tilt That Spills the Grains

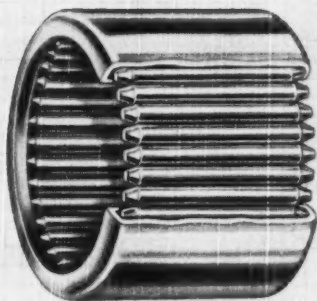
Tilting a car to empty it is an obvious idea; in this country it's done on real and toy railroads. The Germans, though, have a new way to do it: Rotate the side of the car

while you tilt it. Airpowered cylinders do the trick in the Orenstein & Koppel car built at Dorstfelden. The car has a gross weight of 165 tons, a capacity of 3,178 cu. ft.

**more power to the prop
in Kiekhaefer MERCURY motors**

through TORRINGTON NEEDLE BEARINGS

With maximum efficiency and minimum wear, Torrington Needle Bearings help roll 25 horsepower from the power head to the propeller in the Kiekhaefer MERCURY "Thunderbolt."



Anti-friction ease of operation all along the line is secured through the use of compact Needle Bearings on wristpins, crankpins, crank shaft and drive shaft. These high-capacity bearings help maintain precision and smoothness of motor performance under continual grueling operation.

Power output and service life of your product may be increased by the application of Torrington Needle Bearings. Our engineers will be glad to help you.

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EYE-EASE* PAPER makes the Difference!

Ends "Tired-Eye" Bookkeeping Errors

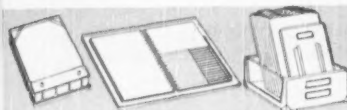
Here's the business-form paper that helps increase accuracy, decrease errors, rework, overtime.

Pale-tinted in green (nature's own comfort color!) EYE-EASE* is ruled in restful darker green and brown. Thus, it scientifically eliminates one of the greatest single causes of office-worker fatigue — eyestrain.

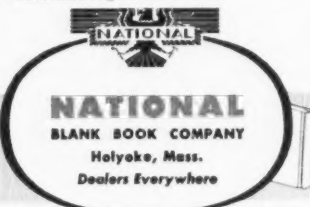
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See your stationer or write direct for National's Record Catalog. Price \$1.00.

*Trade Mark Reg. U. S. Pat. Office.



MAKERS OF STOCK ACCOUNTING FORMS AND EQUIPMENT—LOOSE LEAF, BOUND BOOK AND VISIBLE



clues:

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Founders Are Happier; Business Is Better

Last week foundrymen got a big morale boost—sales prospects are looking better than they have for some time. At the eastern meeting of the Steel Founders' Society of America, at New York, sales reports showed that (1) production figures had increased during the past few weeks; and (2) the volume of castings would be up for at least the next few months.

The boost is coming from renewed buying of durable goods, and a revival of advance orders for railway equipment (a major percentage of the industry's tonnage). But the foundrymen know that, even with renewed business, activity in the industry is not back to what can be called normal. To get business up to that level, they will have to do plenty of competitive selling.

Selling help is expected to stem from the increased research now sponsored by the industry. This research is concentrating on reducing costs of casting production and on improving casting quality. More than \$200,000 has already been spent on continuing projects. Optimistic executives in the industry say that this research eventually can be "cashed in" for more than \$2-million worth of future business.

Time Plus Music Pays Off for GE

The product-development idea of combining two appliances in one has paid off handsomely for General Electric Co. Early in 1946, GE started production of a clock-controlled table radio aimed at the mass market. Last week, the company announced that production has passed the million mark.

Saleswise, that means that clock-radios have added an estimated \$15-million to \$20-million in sales to GE's Electronics Dept.

Clocks-in-radios weren't a new idea in 1946. But GE's plan—to make the clock more than a timepiece—was. In the newest models the original "wake-up-to-music" idea has been amplified to include a timed outlet on the rear of the radio for automatic operation of appliances, such as coffee pots.

Pricewise, the radio has stayed pretty level: In 1946, a single model sold for \$28; today, five models range from \$29 to \$39. But the new ones include alarm, slumber shut-off (so you don't have to get up at night to turn off the radio), automatic outlet. They come in five different colors, don't require an aerial (early ones used a wire antenna).

GAS CARBURIZING

Entrance end of three-zone Gas Carburizing Furnace. The pusher mechanism for continuous operation is shown at right.

Multiple Uses of GAS for Heat Treating at SPICER MANUFACTURING DIVISION OF DANA CORPORATION

Emphasizes Versatility of *GAS* for Metalworking

INCREASED PRODUCTION of case hardened precision gears and pinions is obtained from these GAS heated furnaces. Two-zone furnaces, manually operated, carburize ring and side gears, pinions and pinion mates. Four-zone furnaces automatically carburize and quench shafts and gears for heavy-duty transmissions and torque converters.

Parts are carburized in these controlled atmosphere furnaces, which utilize GAS radiant tube heating. With GAS heating, the accurate control of temperature permits uniform case hardening day after day, with warp and distortion held to a minimum. This precise production control is vital since most of the heat-treated heavy-duty gears are used without further grinding.

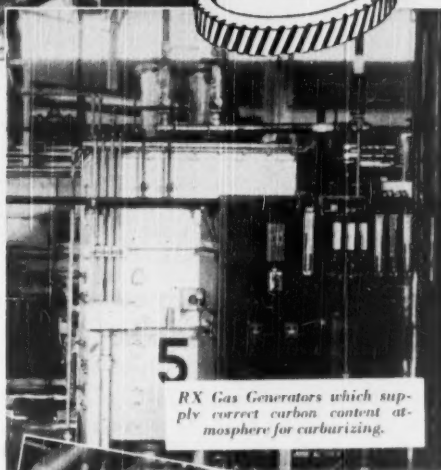
OPERATING DATA

	Zone 1	Zone 2	Zone 3	Zone 4	Capacity	
2-zone furnace	1700°F	1650°F			600 net	Cycle 7 hr
	Continuous pusher type with fan circulation of gas					
4-zone furnace	1725°F	1725°F	1150°F	1550°F	920 net	10 hr 48 min
	heat	Carburize	Cool	Reheat		

These carburizing furnaces provide another example of the versatility of GAS for metal treating with characteristic results:

- Increased Production Rate
- Superior Grain Structure in 3620 or 4320 gear teeth
- Uniform case depth and carbon concentration with continuous operation
- Consistent low rejection loss due to warp and distortion

The heat treating methods at Spicer Mfg. Division, Toledo, demonstrate some of the ways in which GAS can be applied in manufacturing precision parts. Your Gas Company Representative is ready to show you how to make effective use of GAS in your heat-treating applications. Call him today.



RX Gas Generators which supply correct carbon content atmosphere for carburizing.



Entrance end of two-row Gas Carburizing Furnace.

MORE AND MORE...

THE TREND IS TO *GAS*

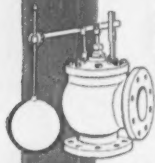
FOR ALL INDUSTRIAL HEATING

Photographs — courtesy of Surface Combustion Corporation, Toledo, Ohio, Manufacturers of Industrial Gas Furnaces.

AMERICAN GAS ASSOCIATION

420 LEXINGTON AVE., NEW YORK 17, N. Y.

...do you have a
temperature
pressure
liquid level
control problem?



Looking for automatic regulating valves, standard or special? Let Klipfel "know-how" work for you. Our engineers are valve men of long experience, but also receptive to your ideas. Our plant is close-knit and fast-moving, with unusual facilities.

Illustrated is a Klipfel Float Valve, one of many described in detail in Bulletin No. 349. Ask for your copy.

Klipfel

VALVES INC.
 DIVISION OF
 HAMILTON-THOMAS CORP.
 HAMILTON, OHIO

Heavy monel easy to cut with Cleco Edge Grinder

After unsuccessful attempts at various methods of cutting, a Cleco 1480 Edge Grinder was used to cut 1/4"-thick monel tank linings at a large oil refinery. This virtually impossible job was accomplished quickly and economically.

The Cleco 1480 Pneumatic Edge Grinder is the fastest and most economical tool for finishing welds, cutting out defective welds, etc.—especially on such tough metals as monel and stainless steel.

A Cleco Field Engineer can help you with your problems whether they be grinding, chipping, drilling, screwdriving or nut running. Air power can help you cut production costs. A word from you will get a Cleco Engineer on the job immediately.

CLECO DIVISION
 of REED ROLLER BIT COMPANY
 5125 CLINTON DRIVE HOUSTON 20, TEXAS

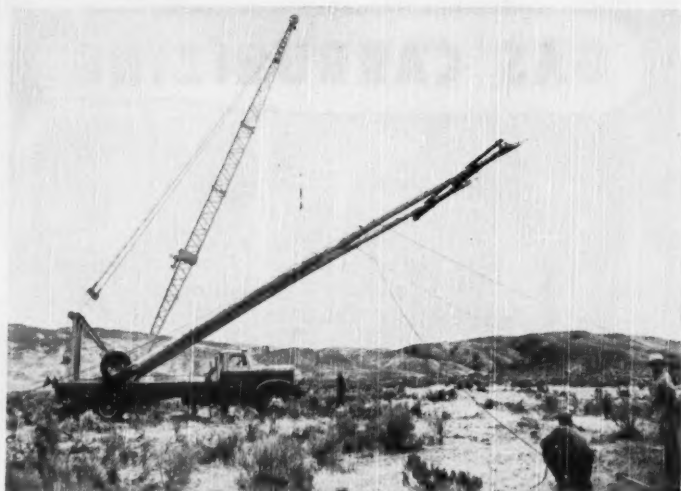


ADVERTISEMENT

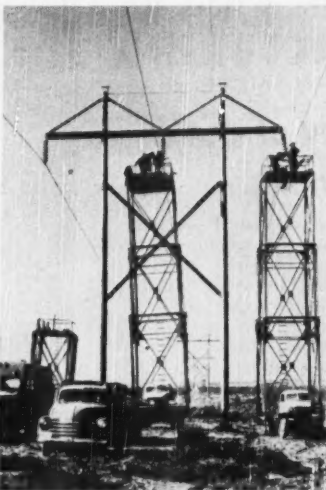
CLECO
AIR TOOLS

2256

PICTURE REPORT



MOBILE DERRICK helps field crews of Idaho Power Co. speed the job of setting transmission line poles. The truck-mounted outfit lifts two poles at once.



TELESCOPING TOWERS for stringing wire stand 49 ft. expanded, contract to 19 ft. for cross-country travel.



PLATFORM on top has comfortable working space for four men. Using rig, line-men string over 3 mi. of wire a day.

Rigs Speed Line Stringing

The job called for erecting poles and stringing lines on a 191-mi. stretch from Bliss to Boise and American Falls in just two and one-half months.

Engineers of Idaho Power Co. completed the assignment on time, but they had to design special construction equipment to do it.

While jurisdictional tiffs were going on—holding up the work—the engineers designed and built mobile, tele-

scoping towers that retracted for travel and extended to pole height for wire stringing.

Another time-saver on the job was a mobile derrick that hoisted a pair of poles at a time. While on the ground, poles were fitted with a 40-ft. crossarm, then lifted into place together. That eliminated building temporary erecting masts, saved time and expense.

Wax and Molasses From Douglas Fir

Pacific Northwest lumbermen are watching byproducts nowadays almost as closely as their basic product. Wax from Douglas fir bark is the latest on the growing list.

The wax is produced by the Oregon Wood Chemical Co., Springfield, Ore., in a \$3-million plant erected during the war for the manufacture of alcohol from wood (BW—Sep. 8 '45, p. 32).

• **Two Tons of Wax**—Charles B. Hudson, Jr., president of the company says initial production is at the rate of two tons of wax a day. The output will be upped to some eight tons daily soon.

Laboratory chemists describe the wax as nearly identical with beeswax. Hudson believes it can compete, in some commercial uses, with carnauba wax. The wax has potential uses in the manufacture of shoe polish, candles, varnish, floor polish, certain ointments, and many art products.

Pilot production the last few months has produced about 120 lb. of wax from a ton of bark.

• **Molasses**—The wax, however, will only be a byproduct. The plant's principal output will be molasses for stock feed. Eventually, the wax will come from the lignin residue in the hydrolysis of wood for molasses production.

Research on molasses-from-wood originated at the Forest Products Laboratory at Madison, Wis., some three years ago. Laboratory officials collaborated in the wax-from-bark development with Dr. E. F. Kurth of the Oregon Forest Products Laboratory at Corvallis, Ore., supported by a processing tax on logs.

The Kurth process involves pumping hot benzene through a tank of ground-up bark, then separating the benzene from the wax, which it dissolves, by steam distillation.

ENGINE BLOCK CLEANER

Getting molding and core sand out of the interior passages in an engine-block casting has always been a tough job. If you don't clean the casting right, you are asking for water circulation troubles, and probably mechanical failure of the motor.

Ford Motor Co. has developed a setup that cleans out blocks automatically. Completed castings ride up a conveyor into a special machine. Then two positioning arms grab the casting, place it in position for 16 nozzles to blast it with iron or steel shot, at a pressure of 85 psi. After blasting, the block is released and rides out on a vibrating conveyor that shakes out the loosened sand and scale.

Creative Package Design



this corrugated "safety" box

Promotes careful handling... identifies contents... simplifies transportation, storage, installation... speeds up order filling. Strongly printed in vivid red and blue on buff-colored, linen-finish corrugated board, its message of caution is unmistakable—yet the design reflects product quality. For better package action—increased protection, improved appearance, more "sell" and lowered costs, consult Hinde & Dauch, Executive Offices, 5003 Decatur Street, Sandusky, Ohio.



Send for Booklet "Pack to Attract," a Valuable Portfolio of Successful Merchandising Ideas from the H & D Package Laboratory.



FACTORIES AND SALES OFFICES IN: Baltimore • Buffalo • Chicago • Cleveland • Detroit • Gloucester, N. J. • Mahan, N. J. • Evans City, Kan. • Lenoir, N. C. • Richmond, Va. • Sandusky, Ohio • St. Louis • Watertown, Mass. SALES OFFICES IN: Akron • Battle Creek • Cincinnati • Columbus • Denver • Erie, Pa. • Fairfield, Conn. • Findlay, Ohio • Greensboro, N. C. • Indianapolis • Miami • Minneapolis • Olean, N. Y. • Omaha • Philadelphia • Pittsburgh • Reading, Pa. • Roanoke, Va. • Rochester • Toledo • Worcester, Mass. IN CANADA, HINDE & DAUCH PAPER CO. OF CANADA, LTD.: Toronto • Montreal • Chatham • Calgary • Halifax • Hamilton • Kitchener • London • Peterborough • Quebec • Regina • St. John, N. B. • St. John's, Newfoundland • Vancouver • Winnipeg

interesting facts

RUST PREVENTIVES • WATER TREATMENT

OVERCOATS FOR pipe lines

In rugged, hilly country—where there's no room for heavy equipment—protective Dearborn No-Ox-Id coatings and wrap are cold applied by hand methods. For every pipe line service, there is a specific No-Ox-Id combination to guard against corrosion.



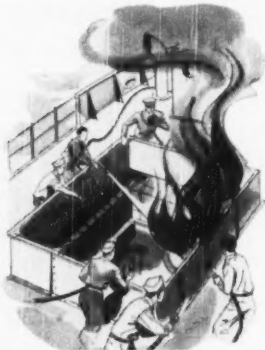
BUBBLE, BUBBLE CAUSES *tail and trouble*

Frothing water in locomotive boilers causes delays, costly shutdowns. With regular "doses" of specially developed Dearborn Polyamide Anti-foams, steam is kept clean and regular freight and passenger schedules go through on time.



CARGO STANDS SALT WATER *soaking*

Fire in the hold! Thousands of gallons of salt water are sprayed to stop the flames. But, the valuable cargo of adding machines came through the ordeal unharmed, thanks to protection by No-Ox-Id rust preventives.



Whether you operate an industrial or processing plant . . . a utility or a pipe line . . . a railroad or a steamship line . . . Dearborn's specialized experience in water treatment and rust prevention is available to help conduct your business more efficiently, more economically.

Dearborn

TRADE MARK REGISTERED

**THE LEADER IN RUST PREVENTIVES
AND BOILER WATER TREATMENT**

Dearborn Chemical Company, General Offices: 310 S. Michigan Ave., Chicago 4, Illinois

Canadian Branch, Dearborn Chemical Company, Ltd., 2454 Dundas St., West, Toronto

Offices in: Los Angeles

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Denver

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Tulsa

San Francisco

New York

Pittsburgh

Detroit

Philadelphia

St. Louis

Shreveport

Agents in principal cities around the world

PRODUCTION BRIEFS

Cooking hardwoods with sulphite turns out a good paper pulp, about \$25 a ton cheaper than the conventional product, the New York State College of Forestry found.

American Brake Shoe has consolidated all its Canadian subsidiaries into one corporation with five operating divisions.

A motion picture camera developed by the National Advisory Council on Aeronautics has a speed of 400,000 frames a second. With electronic controls, engineers think they can double the speed.

New jet engine, the J-48, designed by Pratt & Whitney, will go into Navy Panther and Air Force Sabre fighters. The engine develops a static thrust of 6,250 lb.

Boxboard output will climb 150,000 tons a year when Ohio Boxboard winds up its \$5-million expansion program at its Rittman (Ohio) plant.

Bulk shipments of methanol are handled at a new terminal at Carteret, N. J., for Celanese Corp. of America. Shipments are transferred from incoming tankers to tank cars and trucks for distribution in the East.

A \$5-million ammonia plant is under construction for Dow Chemical Co. at Freeport, Texas. Operations will specialize in refrigeration and technical grades of anhydrous ammonia.

Minimum quality standards for rayon fabrics for 50 end uses have been set up by the Rayon Fabrics Committee, sponsored by the National Retail Dry Goods Assn. Acceptance is up to a member vote.

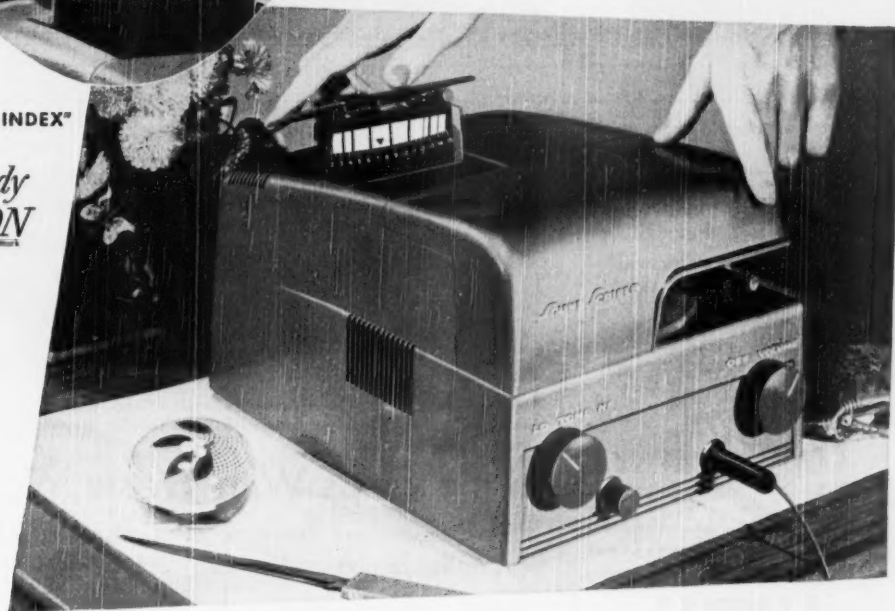
Air-pollution forum will bring government experts to Washington on May 3, 4, and 5. They'll talk over problems with scientists in industry and education.

Want business with AEC? The Government Printing Office has a booklet (10¢) that tells how the Atomic Energy Commission awards construction and engineering contracts. Write: Superintendent of Documents, GPO, Washington 25, for A Guide for Contracting of Construction and Related Engineering Services.

Seeing is Relieving!

"TELEVISION INDEX"
ON

The Lady
TYCOON
Trade Mark



YES, IT IS A RELIEF... a welcome, wonderful relief when your secretary can actually see without staring or squinting exactly where she stands on your dictation.

One swift glance into the magic mirror of Lady TYCOON's exclusive "Television Index" and she knows *exactly* where corrections and letters begin and end. Indexing is magnified, all visual. No bothersome slips or strips... no fumble, fuss or fret.

Effortless as peeking into her compact!

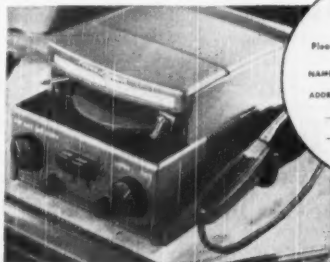
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FIRST ALL ELECTRONIC DICTATING SYSTEM • FIRST DISC DICTATING EQUIPMENT



Only the TYCOON gives you: New "Microgroove" Disc 1/2 smaller; Push Button on microphones for quick review; Disc-on-Disc Recording, DISCoping. All Metal. Lightest, only 15 lbs.

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New Haven 6, Conn.
Please send me "Tycoon" Brochure

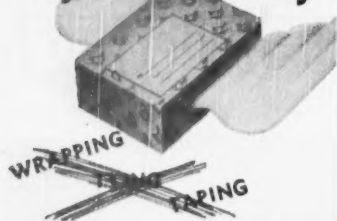
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230 Sales and
Service Centers
Coast to Coast

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Pays its own way



- Reduce number of packaging operations
- Increase speed in packaging time
- Reduce postage—Lessen weight
- Greater protection of contents

THESE economies are greatly in excess of the cost of better mailing boxes. **Mason Mailmaster** can help you cut costs. They have lowered postal shipping expense in hundreds of industries. Send for 16-page catalog.

★ **THE Mason BOX CO.** ★
 ATTLEBORO FALLS, MASS.

"E" STEEL

the amazing new
bessemer screw stock

**Now Available
from distributors**

See the
J & L STEEL

advertisement in
next week's issue
BUSINESS WEEK

NEW PRODUCTS



WOOD-SCRAP CHIPPER at National Container Corp. gets load of logs that aren't big enough for lumber, but can be turned into other valuable byproducts.

In the Chips With Waste Wood

Scrap-wood processor turns unusable timber into by-product that can be used for pulp, roofing, and insulation.

After a forest is cleared of usable timber, a lot of valuable wood in the form of scrap and small branches is usually left behind. D. J. Murray Mfg. Co., Wausau, Wis., is producing a portable wood chipper—originally built on order for National Container Corp.—that turns this scrap into a profitable byproduct for lumber operators and processors.

Timber scrap feeds into the chipper on a ramp connected to the mouth of the unit. Rotating cutting knives inside the machine turn scrap into chips at the rate of 10 to 15 cords an hour. A 153-hp., 6-cylinder diesel engine powers the rotating knives. The chipper can handle pieces up to 12½ in. in diameter.

For permanent installation, the chipper is mounted on skids or a fixed base. For portable work in logging operations, the whole works can be set on a semi-trailer.

Waste wood is supplied to the conveyor by a crane or hoist. After the wood is loaded onto the receiving platform, an operator feeds it into the chipper. Connected to the chipper's outlet is a blower-fed duct that shoots the chips into a truck or trailer driven below.

National Container Corp. uses its chipper at its semichemical pulp mill. Murray thinks it also can be fitted into roof and insulation operations which use unbarked wood in their production processes.

PLASTIC FOR LINE WIRE

Aluminum line wire is the latest product to get the plastic treatment. Kaiser Aluminum & Chemical Sales, Inc., has given the light-weight conductor a coating of polyethylene insulation which has greater durability for out-of-door use.

Polyethylene costs more than other covering materials, but its use in combination with aluminum conductor offers a product of good serviceability and economy.

The plastic has a high resistance to moisture, sunlight, and physical abrasions. Kaiser Aluminum figures the added serviceability of the plastic covering gives an over-all saving of 15% to 30% over conventional outdoor line wires.

The electrical and moisture resistance of polyethylene was utilized in cable insulations and radar work during the war. Since then cable manufacturers

have applied the plastic to copper wire. Kaiser claims theirs is the first application to aluminum line wire.

ARCTIC RUBBERIZED FABRIC

During the last war, the armed forces had a lot of trouble with rubber products in Arctic weather. The rubber would become stiff and unwieldy. With temperatures at 65 below zero, it was not unusual for the rubber to crack.

A new type of synthetic rubber has just been developed by B. F. Goodrich Co. to overcome this problem, at least from the clothing standpoint. (Firestone brought out a rubber compound for Arctic tires last year.) Goodrich's synthetic is designed particularly for rubberizing fabric and giving useful service in temperatures of more than 85 degrees below zero.

The material is to be used to make an exposure suit for members of the armed forces. Aim is to make the suit waterproof and proof against sub-zero temperatures. The suit also includes Goodrich's rubber footwear and its pressure-sealing zipper.

CHEAP AD TRANSPARENCIES

A new process produces duplicates of original color transparencies for point-of-sale displays at a cost 80% less than conventional methods. Color transfers are duplicated on both sides of rigid Vinylite-plastic sheeting by this method.

Display pictures are made from originals of sizes from 4 in. by 5 in. to 11 in. by 14 in. Sizes of duplicates range from 3 in. by 5 in. to 20 in. by 50 in., enlarged or reduced from the original.

Color values in the displays can be varied for use with regular lighting, daylight incandescents, or daylight fluorescent lights. Color images are protected by a transparent coating of plastic-base varnish. The films are flexible and sturdy enough to be mailed in ordinary envelopes without danger of breaking.

The process was developed by William M. Harris, 52 Vanderbilt Ave., New York 17.

AUTOMATIC CELL CHARGER

Battery charging becomes a completely automatic operation with a unit designed by Automatic Transportation Co., 149 W. 87th St., Chicago, Ill. There's no watching to keep your timing right so the battery won't get overheated or buckle.

Charging rates and timing are controlled by two synchronized clocks. One clock controls the timing of the entire operation. The other switches the charger from high to low voltage, controls the trickle charge after a battery



Cornell's Goldwin Smith Hall gets "Automatic" Sprinkler protection throughout

Operating an educational institution like Cornell University is big business, the problems of administration often more complex than those faced by industry in general. Not the least of those problems is plant safety, and, fire protection "with teeth" is a necessity for the multi-million dollar properties which comprise the University... for the safety to life of the thousands of students and faculty members who daily make it their home.

Automatic Sprinkler protection recently installed in Goldwin Smith Hall is an excellent example of modern planning and administration. Yet, *Automatic Sprinkler's* record of fire extinguishing effectiveness is all conclusive... the thousands of dollars annually saved through reduced insurance costs, a further substantiation of their value as INVESTMENT PROTECTION.

Whether your business be institutional, industrial or commercial, your responsibility for the provision of dependable fire protection is absolute and *Automatic Sprinklers* are as necessary as your electric lights.

Your nearest *Automatic Sprinkler* representative will gladly assist you with your fire protection planning and furnish surveys and estimates without cost or obligation.

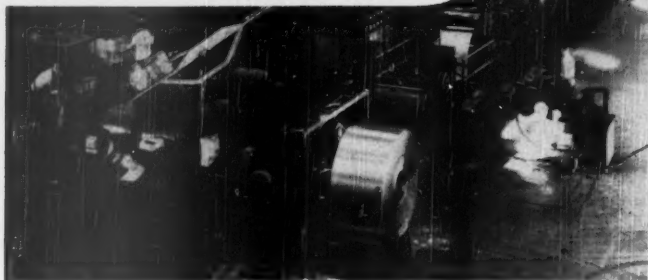
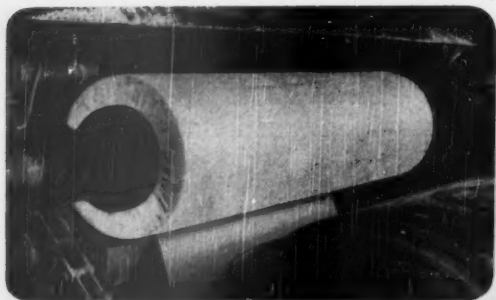
Save lives... save property... save money with *Automatic Sprinklers*.

"AUTOMATIC" SPRINKLER CORPORATION OF AMERICA
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FOR INVESTMENT PROTECTION

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OFFICES IN PRINCIPAL CITIES OF NORTH AND SOUTH AMERICA



Strip comes clean at *1500 feet per minute* with **OSBORN** power driven brushes

ON the continuous scrubbing operation above, Osborn Power Brushes are removing all traces of rolling oil from steel strip at a rate of over 1500 feet per minute. Since a micro-thin coating of tin is later added by electroplating, any foreign matter remaining creates costly scrap and ties up plant operations. Six Osborn Heli-Master* Brushes here provide dependable around-the-clock performance despite the presence of hot caustic solvents.

Whether you have a continuous

metal cleaning, sheet scrubbing, scale removing, bonderizing or conveyor cleaning problem, it is likely that an **OBA** (Osborn Brushing Analysis) will show you how this work can now be done easier, faster and at lower cost with power brushing. Likewise there are many other new, improved Osborn techniques for mechanically brushing a wide variety of finishes on metals, plastics and other materials. Why not request an **OBA** be made of your finishing operations now. Call or write—

THE OSBORN MANUFACTURING COMPANY

Dept. 250, 5401 Hamilton Avenue • Cleveland 14, Ohio

*Trademark



WORLD'S LARGEST MANUFACTURER OF BRUSHES FOR INDUSTRY
POWER DRIVEN BRUSHES • PAINT BRUSHES • MAINTENANCE BRUSHES

has had all it can take of high charge.

To recharge, the user connects the battery to the charger, sets the operating dial to its starting position, and lets the charger do the rest.

NEW PRODUCTS BRIEFS

Preshrunk fabric for the tops of automobile convertibles has a black facing, a heavier black backing. The rubberized fabric, Teal SP-7, is a du Pont development.

Molybdenum-base lubricant, Liqui-Moly, developed by Lockrey Co., College Point 1, N. Y., is intended for use in bearings and gears. The company says ordinary lubricants will heat up as much as 500% faster than Liqui-Moly.

Metal-drawing compound, Fluid-Film, holds its physical properties after repeated stampings of ferrous and non-ferrous alloys. It can be put on with a spray or brush, won't leave any residue on the stamping. Made by: Northwest Chemical Co., 9310 Roselawn Ave., Detroit 4.

Parknicks, an aluminum coin container for auto dashboards, holds nickels for parking meters. The maker is General Distributors, 6301 S. Colfax, Minneapolis.



No Bend, No Stoop

"Back-nine fatigue," the complaint of most golfers who carry their own bags, is due mainly to bending over to pick up the bag. Atlantic Products Corp., Trenton, N. J., has devised a golf bag called Tri-Par that stands up by itself. Tripod legs keep the bag standing as the golfer tees off or putts. The legs retract when he picks up the bag to go on to the next hole.

**"So I descended
from a man, hey?"**



This is one argument we prefer to duck.

Family trees are too tough to figure . . . even on a Monroe.

Things would be different if the gentlemen
above were discussing an accounting problem.

There, we could help. And how!

We'd simply say, "Peace, lads. Stop the
monkey business and get a Monroe. Because whatever
your figuring or accounting problem,

Monroe makes exactly the model to handle it.
Faster, more efficiently, more economically."

Class dismissed!



Monroe solves your figuring
and accounting problems . . . a
model to meet every need!



Monroe CALCULATING Machine
FULLY AUTOMATIC! Star performer saves
time, effort. Sturdy construction, long,
trouble-free service. "Velvet Touch"®
operation. Huge appetite for figures!



Monroe ADDING Machine
TOP VALUE! New 8 column with direct
subtraction. Budget priced. "Velvet
Touch"® keyboard. Engineered to in-
crease figure production, lessen fatigue.



Monroe ACCOUNTING Machine
VERSATILE! Simple, fast, efficient! Like all
Monroes, its "Velvet Touch"® is one reason
why operators who know prefer Monroe.

"VELVET TOUCH" originated in 1935 to de-
scribe Monroe's matchless ease of operation.

Every Monroe is sold only through
Monroe-owned branches; serviced by
Monroe's factory-trained organization.

MONROE *MACHINES FOR BUSINESS*

Monroe Calculating Machine Company, Inc., General Offices, Orange, N.J.

MARKETING

Farm Income Prospects: Dimmer in 1950

What the Farmer Got: 1948 vs. 1949

(Cash Receipts from Farm Marketings, in Thousands of Dollars)

	1948	1949	% Change
United States Total	\$30,646,494	\$27,517,665	- 9.9%
North Atlantic Region	2,932,289	2,599,859	-11.3
Maine.....	211,995	179,370	-15.4
New Hampshire.....	69,234	62,884	- 9.2
Vermont.....	129,360	115,246	-10.9
Massachusetts.....	206,439	181,186	-12.2
Rhode Island.....	24,405	22,312	- 8.6
Connecticut.....	183,573	141,641	-22.9
New York.....	966,422	841,561	-12.9
New Jersey.....	316,850	293,245	- 7.5
Pennsylvania.....	824,011	762,414	- 7.5
East North Central Region	5,863,062	5,147,889	-12.1
Ohio.....	1,049,425	911,945	-13.1
Indiana.....	1,058,458	916,022	-13.5
Illinois.....	1,877,080	1,702,943	- 9.3
Michigan.....	717,565	676,992	- 5.7
Wisconsin.....	1,150,524	939,987	-18.3
West North Central Region	8,035,078	6,927,411	-13.8
Minnesota.....	1,332,313	1,145,055	-14.1
Iowa.....	2,136,682	1,993,871	- 6.7
Missouri.....	1,085,717	944,357	-13.0
North Dakota.....	682,724	464,703	-31.9
South Dakota.....	641,576	527,389	-17.8
Nebraska.....	1,025,747	918,460	-10.5
Kansas.....	1,130,319	933,576	-17.4
South Atlantic Region	2,921,690	2,699,738	- 7.6
Delaware.....	98,654	102,019	+ 3.4
Maryland.....	249,222	240,137	- 3.7
Virginia.....	447,862	405,871	- 9.4
West Virginia.....	129,592	113,827	-12.2
North Carolina.....	791,963	712,713	-10.0
South Carolina.....	349,462	278,043	-20.4
Georgia.....	519,520	448,575	-13.7
Florida.....	335,315	398,553	+18.9
South Central Region	5,589,948	5,424,140	- 3.0
Kentucky.....	591,552	527,920	-10.8
Tennessee.....	502,855	426,914	-15.1
Alabama.....	426,253	345,679	-18.9
Mississippi.....	532,541	481,312	- 9.6
Arkansas.....	557,403	527,607	- 5.4
Louisiana.....	351,360	342,151	- 2.6
Oklahoma.....	673,329	621,763	- 7.7
Texas.....	1,954,655	2,150,794	+10.0
Western Region	5,213,637	4,718,628	- 9.6
Montana.....	392,965	297,827	-24.2
Idaho.....	371,954	317,999	-14.5
Wyoming.....	163,298	147,560	- 9.6
Colorado.....	548,661	477,832	-12.9
New Mexico.....	188,791	192,953	+ 2.2
Arizona.....	220,683	236,304	+ 7.1
Utah.....	157,921	140,232	-11.2
Nevada.....	52,433	40,819	-22.2
Washington.....	566,181	505,867	-10.7
Oregon.....	386,562	334,420	-13.5
California.....	2,164,088	2,026,815	- 6.4

If you're in a business that involves selling merchandise to farmers, you already know the bad news: The farmer's cash income is going to drop off at least 10% this year from 1949 standards. The Dept. of Agriculture's experts made that prediction last fall, and they see no reason for changing their overall estimate now.

What you may not know, however, is how that income drop is going to break down by regions. You can get some good answers from the table at the left. It shows, by state and by region, just how the farmer fared last year compared with 1948. And Agriculture's economists think that 1950's cash farm receipts are going to follow pretty much the same pattern of gains and losses as last year.

Roughly, the forecast, which is based on figures published by the Bureau of Agricultural Economics, shows that:

A lot of farmers are going to be poorer this year;

A few farmers will have more dollars to spend this year than last;

Almost all farmers, compared with prewar standards, are still going to be in a healthy cash position anyhow.

For marketers whose products are sold to specialized groups—dairy farmers, grain growers, citrus ranchers, or what have you—Agriculture has broken the state-by-state comparisons down by commodities. A careful appraisal of this more detailed breakdown, which is available from Agriculture, will give you a pretty good idea of whether your sales to farmers are going to be higher or lower this year than last.

• Five Fat States—The general picture is pretty clear. Only five states showed up as fatter markets in 1949 than in 1948. They were Texas, Arizona, New Mexico, Florida, and Delaware. Reasons: more wheat and cotton output in Texas; more cotton in Arizona and New Mexico; higher citrus prices for Florida; and a larger volume of broilers from Delaware.

In the remaining 43 states, farmers got less money—mostly because of the general drop in prices of their crops and animals. To some extent, the price drops were offset by increases in production.

• Lean Ones—Still, there were some big losers: North Dakota's cash farm income dropped 32%; Montana's, 24%; Nevada's, 22%. Most of these resulted from declines in both price and volume of grain or livestock marketed.

From a study of the 1949 picture,

the forecasters figure citrus areas will show an even greater boom this year than last—and don't forget that Florida registered a 19% boost in farm income in 1949. The chief reasons for this prospect:

Rising consumption of all types of citrus juices. Overproduction and low prices back in 1947 put more citrus into cans as juice—and that, in turn, made for wider distribution and continuing sales.

Booming sales of frozen concentrated juices (BW—Feb. 4 '50, p. 62).

Frosts and other "bad luck" have cut citrus output recently and helped to boost prices.

Wheat-belt citizens out West should have somewhere between the same amount and 5% fewer dollars to spend in 1950 compared with 1949. Despite the 15% cutback in wheat acreage, prospects of better yields per acre this year mean that the farmers may come out with about the same number of bushels to sell. And with government price supports guaranteeing a minimum price only a shade below last year's \$1.90 a bushel, chances are that the wheat men will probably end up with just about as many greenbacks as they did last year.

Cattle raisers in the West and Southwest will ship about as many animals to market in 1950 as last year, and they'll get pretty close to the same prices. That should keep their incomes from dwindling. They could ship more, but they're holding back some to build up their herds and make it possible to ship more steers and calves in 1951, 1952, and 1953. There are no support prices for beef, but consumers' yen for red meat will probably keep prices high anyway.

Corn-belt farmers in the Midwest, like wheat farmers, may find themselves with about 5% fewer dollars this year. For while their hog volume is going to stay high, prices will probably shade off. That will mean a drop in total income, but there may be price supports on hogs to help out.

• **Slim Cotton Prospects**—Cotton country will be hit hard this year. There is a sharp cutback in acreages planted, and tough controls will hold down the number of bales a farmer can market. Probable result: a drop of up to 20% in cash income for the cotton farmer. The bill that's now going through Congress easing up acreage restrictions for cotton will help out small cotton producers some—but inasmuch as they are going to be well below 1949.

Dairy-country farmers are in good shape. This year should be about as good as last for the milk-cow country centering around Minnesota and Wisconsin. One reason is that the government is supporting the price of "manufactured" milk—cheese, butter, etc.—at

"Picture-in-a-minute . . . because we erased a century of habit-itis"



says

J. H. Booth

Exec. Vice Pres.

Polaroid Corporation

"We had to side-step the conventional, and banish a hundred years of 'habit-thinking' in our industry to even envision a camera that takes a picture, develops and prints it in less than a minute," continues Mr. Booth. "Once done, however, our course was clear. Our direction and purpose, research and design, methods and materials—all were free of the bonds of conventionality . . . and the new Land camera was born."

Two Monsanto plastics help make Polaroid's sensational, fast-selling camera a functional success. The spool on which negative film is wound is made of durable, easily-molded Lustrex styrene—it completely eliminates the danger of light damage that Polaroid found present with conventional metal spools. Secondly, through the use of Monsanto's vinyl butyral, components of Polaroid's unique self-developing film were effectively protected from moisture.

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the same level as a year ago. Milk farmers in the sheds that supply fluid milk to the big cities, however, are likely to have less cash money this year; fluid milk prices are moving slowly downward, despite efforts to halt the trend.

• **Break-Even Problem**—Even though farm incomes stay relatively high, that doesn't mean there aren't a few flies in the ointment. The biggest of these is the farmer's break-even point.

Here's how the cost-price squeeze is working in the corn belt: Between 1942 and 1948, according to records of the Illinois Farm Bureau Farm Management Service, farmers' average gross incomes jumped from \$11,000 to \$23,000. But expenses went up a lot faster, from \$6,000 to \$16,000. Now, with farm prices skidding, the farmer is having trouble trying to reduce such production costs as gas and oil, hired labor, and repairs. That will probably put some of the smaller or less efficient farmers in or close to the red ink by the end of the year.

Some farm equipment dealers say they can already feel the beginnings of a farm-dollar drought. They look for 1950 to produce a big increase in credit purchases of new types of farm machinery.



New Ad Council Head

Samuel C. Gale, vice-president and advertising director of General Mills, Inc., was elected board chairman of the Advertising Council this week. He is the first Midwesterner in the council's seven-year career to be tapped for the job. Gale succeeds another food man, Charles G. Mortimer, Jr., General Foods Corp. vice-president in charge of marketing. U.S. publications and radio stations are giving the Advertising Council's numerous public-service campaigns some \$100-million worth of free space and time annually.

BUILDERS OF THE BRASS INDUSTRY



ELISHA WELCH

(Second President of BRISTOL BRASS)

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Man of decimal-details . . . Yet man of broad vision who did even better
than move mountains . . . Hence one of the first U. S. multimillionaires*

DIGGING stumps on a summer afternoon in 1851, Lige Welch rested to talk to teamsters who were hauling Brass from Waterbury to the clock-making capital of Bristol. Good-naturedly, he told them he was going to put them out of business, for, he said: "I can't move the Naugatuck, but I can and will build a Brass mill in Bristol."

Bristol Brass and Clock Company's first president, Israel Holmes, heard about this and decided here was a man to join up with, since he couldn't be licked. So on August 6, 1851, Elisha Welch became the second president of Bristol Brass. That was the year of the rise of Louis Napoleon, of the first

World's Fair (in London), of the first stirrings of a political group later known as the GOP. Soon came the War Between the States, during which Welch won Bristol's vote for Breckinridge against Stephen Douglas, for he feared that a Southern defeat would mean the end of Bristol's clock industry.

Welch continued as Bristol Brass president to the day of his death, August 2, 1887, when he had built the company's business to new highs. Also, with the first oil well drilled in Titusville, Pa., in 1859, he set up another company to make burners for kerosene lamps. And Bristol Brass continued to surge ahead, even in hard times, building new business

and also new additions to the mill buildings.

This "damn the torpedoes . . . full speed ahead" kind of management has brought Bristol through five wars and more depressions and "recessions" than you can count. It has become a Bristol tradition that is stronger today than ever before . . . that as long as there is one man alive who wants good Brass sheet, rod, and wire on a certain day . . . then, come hell or high water, he's going to get it the way he wants it, and when he wants it . . . from Bristol. And that means you, too, no matter what your product.



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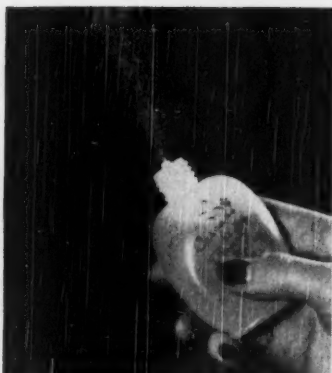
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FIRST user of the Plaxpak plastic bottle was General Chemical. It found the plastic impervious to its hydrofluoric acid reagent.



NEXT user, Jules Montener, made use of the bottle's squeezability for Stopette deodorant, then for cologne (above).



NOW dozens of big-name companies are using the bottle. With one exception (Max Factor's World of Beauty Lotion), all the toilet preparations pictured above are . . .

Old Products in New Plastic Bottles

Two years ago Plax Corp. found out how to apply "blow" molding, used in the manufacture of glass bottles, to polyethylene. This plastic, produced in the U.S. by du Pont and Bakelite, was already widely used in sheets and other molded forms. But the molding process developed by the Hartford-Empire Co. subsidiary suddenly opened up vast new markets for the plastic.

Plaxpak bottles have a number of valuable assets. Like glass bottles, they can be molded to almost any shape (note Lehn & Fink's Tussy snow men, above), can be colored. Besides this, they have some features that glass bottles haven't got. They are: (1) squeezable, and therefore useful for liquid

sprays or for creams; (2) practically unbreakable; (3) impervious to some acids that affect glass; (4) about one-fifth as heavy as glass.

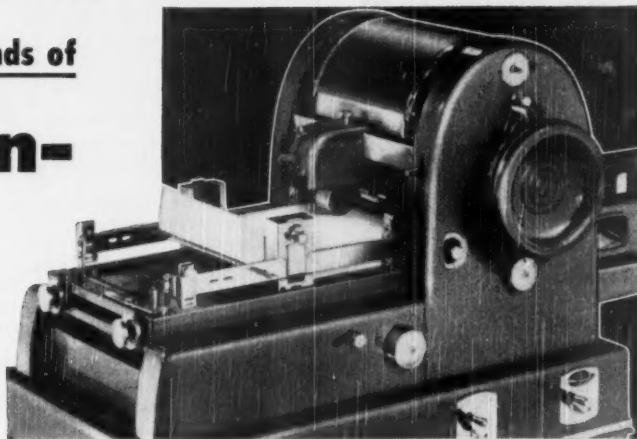
They also have some disadvantages. Boiling water will weaken them. And Plaxpak bottles cost roughly four times as much as equivalent glass bottles. But because they're lighter, Plaxpak bottles cost less than glass to ship.

Within the past few weeks at least five big names in the toilet-goods field—Shulton, Sales Builders (Max Factor), Lehn & Fink, Northam Warren, John Hudson Moore—have begun to use Plaxpak bottles. Plax Corp.'s current output of 2-million bottles a month will be doubled by the year's end.

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Other features are semi-automatic ink distribution and recovery system, copy counter with automatic shut-off, trouble-free, flat-type strippers and many more new developments.

The heavy-duty electric-drive models are for high-speed, sustained production—the electric table model and the sturdy hand-operated machines for less frequent use. In short, there is an A. B. Dick mimeograph to fit every office duplicating need. You can select the right model to fit your individual budget and copy requirements.

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THE MARKETING PATTERN

DOES distribution cost too much? That's a question that economists of every stripe have been kicking around a long time.

Wroe Alderson, president of the marketing consultant firm of Alderson & Sessions, says the costs of distribution, as a percentage of all economic costs, have just about stabilized in the U.S. Last week, he offered a few cautions to those who do some figuring and thinking on the subject. (Alderson was addressing the National Marketing Conference in Detroit, sponsored by the U.S. Chamber of Commerce.)

Alderson's main theme was this: In making any judgments about distribution, you've first got to be accurate about your figures.

He outlined three traps that are easy to fall into. The first one is a matter of bookkeeping and classification of expenses.

Take for example, says Alderson, the dairy farmer. Years ago, the farmer whose cows produced the milk also distributed it from door to door. Now it's distributed by a dairy. The dairy's costs are on its books—a matter of record. The farmer kept no books—so his costs, as far as the record is concerned, were zero.

We could go back to farmer-delivery and again let distribution costs drift down to a fictitious zero. But it would give us a less efficient system. Over the years, says Alderson, the gradual expansion of intermediary distribution has created an apparent—but not necessarily real—upward trend in distribution costs by moving certain items from the production ledger to the distribution ledger.

THE second trap, says Alderson, is this: Sometimes you can lower the total cost of a product by boost-

ing the cost of distribution. Suppose that people in Pennsylvania tried to grow strawberries commercially. Production costs would be high. The fact of the matter is that it's cheaper to grow strawberries in Louisiana and pay the freight to Pennsylvania than it is to grow them in Pennsylvania. Of course, distribution in this case accounts for a large percentage of the total costs. Yet it's simply more economic this way—regardless of the higher percentage of distribution cost.

Advertising, Alderson adds, frequently works in the same way. By adding a small amount to the distribution cost, you may be able to subtract a larger amount from production expenses; in the end, that means lower total cost.

THE third trap, says Alderson, is misuse of percentages to compare production and distribution costs. "If an increase in distribution costs lowers the total cost of a product, marketing should receive a badge of merit rather than a demerit. Yet obviously as a purely statistical matter, the percentage of distribution cost will increase because the base on which the percentage is figured has decreased."

Alderson doesn't think that distribution costs are declining as a part of all costs in our economy. In country after country, he says, industrialization has meant a steady decline in the percentage of the labor force engaged in agriculture—and a corresponding increase in the percentage engaged in distribution and other service fields. But Alderson does come to the conclusion that distribution costs—as a part of all economic costs in this country—have finally reached a point of stabilization.

WOOL ORDERS LAG

There are new signs of trouble in the textile business.

The first danger signs showed up recently in rayons (BW-Feb. 25 '50, p. 25). Then sales of cotton textiles and print cloths tapered off in New England. Now it looks as though it's wool's turn.

That's what the Wool Associates of the New York Cotton Exchange report, anyhow. Despite retailers' statements

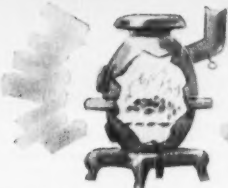
that they look for the Easter season to sell a lot of women's wear, Wool Associates report that inquiries for women's wool coats and suits have been "very slow." The association warns: "Buying had better come soon if volume is not going to be seriously low."

Prices also worry the trade, thanks to the rising cost of wool. American Woolen Co. recently announced increases (ranging from 24¢ to 20¢ a yard) on some women's wear cloth.



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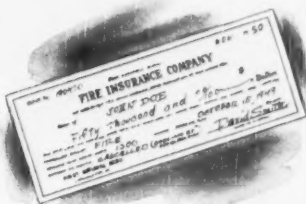
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Pepsi-Cola Tries Out Cans

There's a new president and a new marketing angle at Pepsi-Cola. It's all part of the battle with rival Coca-Cola.

The sales gap between Pepsi-Cola and Coca-Cola has widened ever since the latter came back from war. Now Pepsi is trying some new tactics in its tough battle with the nation's No. 1 soft-drink maker:

- Last week Walter S. Mack, Jr., moved up from presidency to chairmanship of the board. His job as president was taken over by the first vice-president, Alfred N. Steele. Interestingly, until Mack brought him over to Pepsi last March, Steele had been for many years a vice-president of rival Coca-Cola.

- For several weeks Pepsi has been trying out tin cans as sales ammunition. It is test-marketing its beverages in a cone-top can like that used for beer. The new containers are being sold in grocery stores—alongside Pepsi's regular 12-oz. bottles for home consumption—in several suburban markets around New York City. Pepsi's idea is to find out which container the consumer prefers.

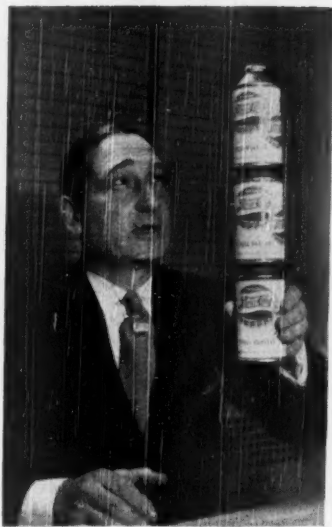
- **Higher Prices**—On the face of it, Pepsi's gambit has some gamble in it, too. Bottles cost only a fraction of a cent apiece, while the type of can that Pepsi is using comes to more than 3¢. So Pepsi has had to raise the price for its beverage in cans. They retail at 25¢ for three 12-oz. cans—nearly double the price of the regular 12-oz. Pepsi bottles, which retail generally at 30¢ for six.

To put out a more expensive version of your product in the teeth of heavy competition ordinarily wouldn't make sense. But there's a special factor in Pepsi's case. Its drink has always been priced lower than that of its arch-rival, so that gives some price leeway to play with. Thus, Pepsi in cans costs no more than an equivalent amount (36 oz.) of Coca-Cola in bottles.

The gimmick about cans is, of course, that you don't have to bother to pay a deposit on them or to lug them back to the store, as you do bottles. Pepsi is plugging this "no deposit, no return" angle. Pepsi undoubtedly sees other competitive possibilities in the use of cans. For instance, it may figure that cans will give a special consumer appeal to its product.

- **Sales Losses**—Here's Pepsi-Cola's post-war history vis-a-vis Coca-Cola:

At first, just after the war, it did well. Sales increased from \$45-million in 1946 to \$56.4-million in 1947.



NEW CHAIRMAN Walter Mack exhibits Pepsi-Cola's latest competitive wrinkle.

Then they dropped to \$46.6-million in 1948. Meanwhile, Coca-Cola's sales zoomed from \$179.2-million in 1947 to \$234.9-million in 1948. The 1949 figures aren't yet available. But as of a few months ago (BW-Dec. 17 '49, p81), it looked as though both companies would come out just about where they were the year before.

In its fight with its big rival, Pepsi-Cola has tried several innovations in the past. It pioneered the use of six-bottle cartons for soft drinks. And more recently it introduced an 8-oz. bottle of Pepsi for on-premise consumption at ball parks and the like.

- **Scanty Data**—Will Pepsi's latest idea pay off? That's a tough question to answer at this time because of the scanty data on the whole subject of soft drinks in cans.

Soft-drink people and can companies have long talked about using cans for pop. But the trade knows of only one major effort by a large soft-drink maker to try the idea out. About seven years ago, Clicquot Club put up 100,000 cases of ginger ale in cans. It didn't work. Within two weeks the citric acid in the ginger ale ate through the lining of the cans, and Clicquot Club dropped the whole thing.

- **Cost Problem**—Now, however, technical advances have licked the lining problem. Continental Can Co. (maker of the Pepsi cans) and other manufacturers say that they can make linings for many soft drinks.

The cost factor, on the other hand, is still there for the moment.

Too Many Trucks?

Some dealers are being pressured to take trucks they don't really want, have to pare profit margins to get rid of them.

"The factory sent me this three-ton truck," said one automobile dealer in metropolitan New York, "without my even asking for it. I've had it for two months now, and if I knew somebody who'd take it, I'd let him have it for \$50 under what it cost me."

• **Grumbling**—In many parts of the U. S., you could hear dealers grumbling similar sentiments this week. In a recent survey by the National Automobile Dealers Assn., 25% of more than 10,000 dealers queried said that they had "been influenced to purchase an excess of trucks." And 21% of the dealers stated that their manufacturers shipped them new vehicles (both cars and trucks) without a specific order from the dealer.

What it all adds up to is this: Trucks are getting harder to sell—and most of the factories are still turning them out by the boatload.

• **"Not I"**—Manufacturers claim that they're not putting the heat on dealers to take more trucks than they can handle. Chevrolet says that it has more truck orders from dealers on its books than it can make; therefore, any complaints about overstocking can't come from Chevrolet dealers. Dodge claims that every Dodge truck is built on order, to specifications, so there can't be any shipments that aren't ordered. Ford says it is against tie-in sales (forcing dealers to take trucks with their passenger-car orders), and that it will take immediate corrective steps against any field representative it finds loading up a dealer.

Many dealers queried by BUSINESS WEEK agreed that the trucks didn't come unasked for and unordered. But they added that they were under plenty of pressure to order trucks they didn't really want.

• **Paring Profits**—As a result, dealers are cutting profit margins on trucks to the marrow. In Kansas City, however, the Dodge dealers' association had a meeting on the truck situation last month. All agreed not to go under a minimum profit of \$125 a truck on any deal.

GREYHOUND JOINS TIGER

New England Greyhound Lines, Inc. signed an agency agreement last week with The Flying Tiger Line, airfreight company. From now on, it will be easier for shippers along a bus line in

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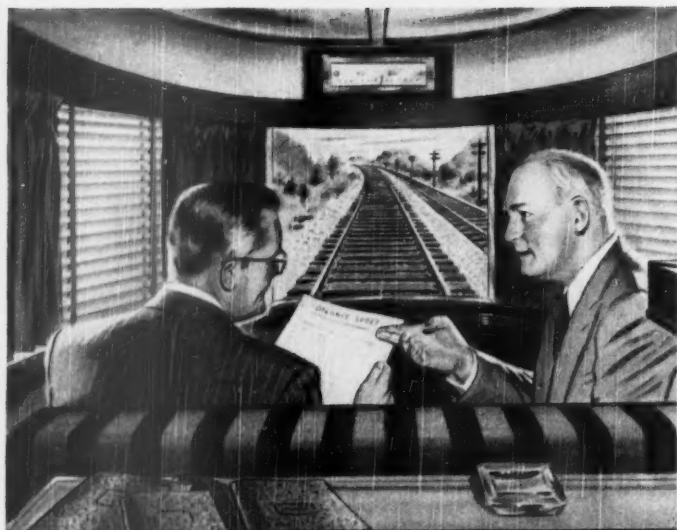
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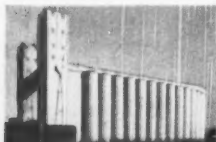
Here's why you get more for your money with **CONCRETE** construction

OWNSHIP of anything, whether a handkerchief or a hospital, involves three separate costs. First is original price, which often is mistaken for the actual cost of ownership. Second is maintenance cost. Third is **annual cost**, and this is the real cost yardstick of ownership. It is derived by adding original price and maintenance cost and dividing by years of service rendered.

When you build with concrete you get **low-annual-cost** construction. That's because first cost is moderate, maintenance is unbelievably low and service is exceptionally long. This applies whether you own, as an individual or taxpayer, a home or highway, a farm building or factory, a school or sewer line.

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So whatever you or your community plan to build, insist on concrete and you'll get more value for your construction dollar.



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New England to send their cargoes via air.

Here's how it works: Outbound freight from New England towns will be placed aboard the first available bus for the Boston air terminal. Flying Tiger will pick it up there, fly it to the consignee.

Warmth Without Weight: Milliken's "Fabric X"

Deering, Milliken & Co. says it has a new textile process that goes a long way toward achieving the long-sought ideal of warmth without weight. Treat a nylon seersucker blanket cover with its process, claims Milliken, and you'll get more warmth from it than you can from a 3½-lb. wool blanket.

The idea behind the new process is to cut down heat loss by radiation from the body. The body also loses heat by conduction and convection; but radiation accounts for by far the greater loss—from 75% to 85%, says Milliken. To lick this problem, the Army Quartermaster Corps once tried putting aluminum strips in jacket linings.

• **Tiny Mirrors**—Milliken does it by impregnating cloth—it won't say just how—with metal particles in a resin. Aluminum, says the company, has been found to be the most effective. The particles act like tiny "mirrors" that radiate heat back to the body.

Milliken claims "Fabric X"—as it is called now—not only makes cloth warmer, but also: (1) can be applied to any fabric—nylon, cotton, rayon, and wool; (2) doesn't affect the feel, durability, creasability, or other characteristics; (3) increases porosity, so that treated fabrics are cooler in summer as well as warmer in winter.

Milliken has been at work on Fabric X for several years. The original research was done by a Cleveland research company, H. J. Rand & Associates; Milliken and Rand collaborated in the later stages of development. H. J. Rand, president of the research company (and son of James H. Rand, chairman of Remington Rand, Inc.), was the inventor of the Remington Rand electric shaver and the Bendix Economat.

• **Production**—Milliken—largest of all U.S. textile concerns in number of spindles—will get into mass production of Fabric X at its new Pendleton (S. C.) plant in about a week's time. There the company will process cloth on order. First users will be "leading prestige manufacturers" of garments, blankets, and other goods. Consumers will get their first crack at Fabric X when they do their fall buying.

For the first season or so, Milliken will be the sole producer of Fabric X. After that it will license others.



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SALES like this, once a sign of bankruptcy, spell smart merchandising now that . . .

Retailing Proves More Stable

Failures in stores used to be heavy. But the latest figures on business population show that retailing now has a better record than other industries.

The retailer's life expectancy today looks better than usual.

The failure-rate in retailing has declined sharply when 1949 is compared to 1941. The odds now favor a higher percentage of failure in almost every other segment of business.

That's what some new Dun & Bradstreet figures indicate. On the gloomier side, business failures as a whole increased sharply (75%) in 1949 over the previous year. But:

Over-all business failures—despite this short-range increase—are still 20% lower than in 1941.

Retailing has accounted for this brighter long-range showing. True, retail failures jumped quite a bit between 1948 and 1949—as did failures in other lines. Even so, 1949 retail failures were still well below the 1941 level. On the other hand, failures in manufacturing, mining, wholesaling, construction, and service industries actually increased over 1941.

This good news for retailers is corroborated by the Dept. of Commerce's Office of Business Economics. Basing their judgment on their own comprehensive data, OBE men put it this way:

It looks as if retailing in general had less of a boom, got over it quicker—and at present has fewer shaky companies percentagewise, than almost any

other group in the business population.

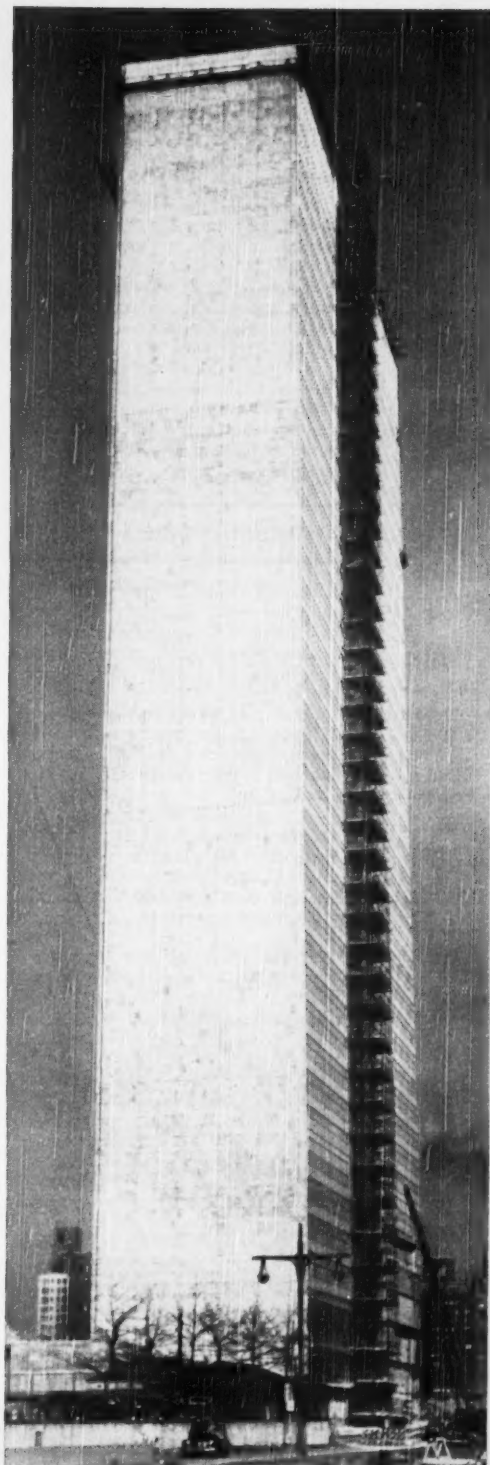
• **Birth Rate**—The end of the war, of course, took the lid off for the businessmen and would-be businessmen. Everyone wanted to get into the act—and many did. So the birth rate of all businesses zoomed to a new high in 1946. There were some 619,000 new firms formed in that year. Since then, the birth rate has dropped a bit.

During the same years of the high business birth rate, there's been a steady year-by-year increase in the number of firms that go out of business. (The OBE figures are based on all business "discontinuances," not just bankruptcies.) The discontinuances have crept up from 198,000 in 1944 to 370,000 in 1948, and about 480,000 or so in 1949. This year there will be even more.

The result: The general business population reached its peak in 1948. In 1949, the growing death rate and declining birth rate brought the total business population down for the first time since the end of the war. Number of firms in business last year was 1.7% below 1948.

• **More Stable**—The retail population figures follow the same general trend as total business population—but the ups and downs aren't so sharp.

Here are the OBE figures showing



The 39-story Secretariat, first of three impressive structures which will comprise the United Nations' new home.

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The new United Nations buildings will have one thing in common with other famous Manhattan landmarks. Like the Pennsylvania and Grand Central Stations, Radio City, the Empire State and Chrysler Buildings, the Waldorf Astoria and literally hundreds of others . . . they will be heated with steam supplied by the Kips Bay Station of the New York Steam Corporation, supplemented by exhaust steam from the topping turbines of the Waterside Station of the Consolidated Edison Company of New York.

All of the five steam generating units in Kips Bay and eight of the ten units in Waterside were designed and built by Combustion Engineering-Superheater, Inc. The thirteen C-E Units in both stations have an aggregate capacity of approximately 8,000,000 pounds of steam per hour.

In cities and towns throughout the country you will find C-E boilers in the plants of leading utilities and industrials. Why? Because the engineers who select equipment for such plants know from experience that the best steam generating equipment they can buy will prove to be not only the most efficient and reliable, but—in the long run—the most economical. And this applies to small plants as well as large . . . so whatever your steam requirements for power, process or heating, it will pay you to investigate C-E boilers before you buy.

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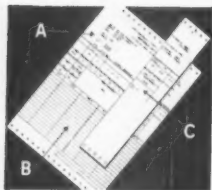
"Revisor" Plate is placed over the original and, when run with it on the duplicator, produces up-to-date copies for processing the re-order. Area B on the original plate, ruled with non-reproducing ink, provides spaces for recording all re-orders. Thus, only one sheet need be filed for a complete history of all orders and re-orders.

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percent change in number of firms in operation (figures are plus unless indicated as minus):

	1939-43	1943-48	1939-49
All industries	-7.9%	30.6%	18.2%
Contract construction	-21.1	102.2	61.1
Wholesale trade	3.3	42.8	47.4
Manufacturing	7.1	37.3	33.2
Service industries	-7.0	30.9	20.4
Retail trade	-10.2	21.7	7.6

A lot of these new concerns are needed, of course, to supply the expanded population, and the new markets.

• **Weeding-Out Process**—But the bankruptcy and discontinuance figures leave no doubt that a post-boom weeding-out process is still going on.

The government experts note that the population of retaildom is now only about 8% greater than in 1939. That suggests that retaildom hasn't much excess baggage to dump if and when the going gets rough.

MARKETING BRIEFS

All-fur garments are now taxed 20%, as of last week. Previously, the Bureau of Internal Revenue had exempted cheaper fur coats and wraps. Fur-lined and fur-trimmed cloth coats, however, are still exempt.

• **A 50% tax on bay rum**—to prevent people from buying it for drinking purposes—is under consideration by South Carolina.

• **Standard dress sizes** are in prospect for mail-order houses. The Mail Order Assn. of America is working on specifications that, the catalog houses think, will cut down on returns.

• **Network television** by coaxial cable came to Memphis, last week, bringing the Bell System's network to 26 cities. By year's end, Bell plans to add 14 more cities to its wire and radio-relay web.

• **S. Klein On-the-Square**, Grayson-Robinson's bargain-basement-type store in New York, opened a new six-story branch in Newark, N. J., last week.

• **Stuarts Clothes, Inc.**, metropolitan New York men's clothing chain, cut prices 40% on its spring line last week. Louis Zeller, president of the manufacturer-retailer chain, said he was trimming margins—and putting alterations and deliveries on a pay-if-you-want-them basis.

• **Furniture business** looked good in January, says Seidman & Seidman, industry accountants. Manufacturers booked 26% more new orders than they did in January, 1949—even 3% more than in the record-breaking January of 1948.

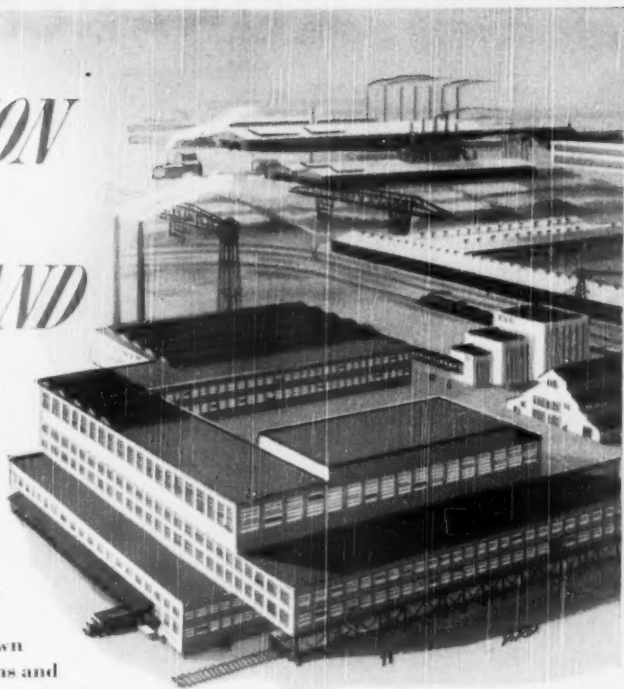
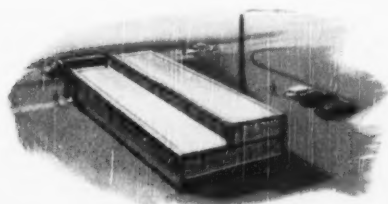
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Webster organization are the Securities and Service Corporations—both readily available should the need arise for help on financing, or for practical advice on technical questions of business management or operation.

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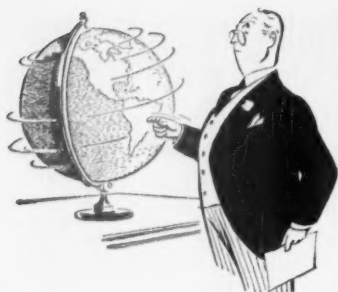
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FINANCE

New Issues Boxscore: 1929-1949

	Corporate Filations—				Municipal Offerings
	Bonds	Preferred Stocks	Common Stocks	Total	
1929.....	\$3,105	\$1,809	\$5,112	\$10,026	\$1,431
1930.....	3,905	435	1,134	5,474	1,487
1931.....	2,246	148	195	2,589	1,256
1932.....	620	11	13	644	850
1933.....	229	15	138	382	521
1934.....	456	3	31	490	940
1935.....	2,116	124	27	2,267	1,220
1936.....	4,064	286	282	4,632	1,117
1937.....	1,673	468	292	2,433	902
1938.....	2,042	79	19	2,140	1,100
1939.....	1,962	161	73	2,196	1,126
1940.....	2,435	246	82	2,763	1,234
1941.....	2,320	219	80	2,619	953
1942.....	913	110	19	1,042	524
1943.....	907	131	43	1,081	435
1944.....	2,669	411	101	3,181	639
1945.....	4,938	1,036	284	6,258	795
1946.....	4,570	1,269	813	6,652	1,161
1947.....	4,802	846	670	6,318	2,272
1948.....	5,603	443	496	6,542	2,686
1949.....	4,315	395	613	5,323	2,907

NB All figures in millions of dollars. Data: Commercial & Financial Chronicle.

Paradox in New-Issues Market

Last year was the best in history for municipals, but corporate borrowing was down. This year, both are up, but tax-exempts are still gaining faster.

The 1949 new-issues market was a paradox. Municipals had their best year in history; corporate new issues had their worst since 1944.

Evidently, it's going to be much the same thing in 1950. In the first two months, new issues of municipals climbed 150% above January and February of 1949. New corporate issues (including stocks) had only a 62% gain. • **Signs of Health**—Either way you look at it, of course, the showing is a lot better than last year. In 1949 total offerings of new corporate, state, and municipal issues came to only \$8.2-billion, 10.8% less than in 1948. In the first two months of this year, bond underwritings alone ran close to \$1,250,000,000. That compares with \$630-million in the same period of 1949. Stock offerings, at \$104-million, were up, too—\$63-million more than 1949.

Behind the spectacular jump in bonds were three unusually big pieces of financing. Pennsylvania's \$376-million of veteran-bonus bonds was the largest issue ever offered at competitive bid-

ding. American Telephone & Telegraph marketed a \$200-million issue. The World Bank put through a \$100-million refunding operation.

• **Summer Is Here**—Still, beyond the big issues, the trend to municipals is marked. And even though one swallow doesn't make a summer, Wall Street sees little chance of a change in climate during the rest of the year.

Here's why: Most corporate plant-expansion programs are just about finished. Besides, now that prices have settled down, companies don't need so much working capital to carry on operations. Business seems inclined to pay off old debts. Finally, the Street thinks the utilities industry, the biggest marketer of new issues in the last couple years, is ready to cut its financing.

All that leaves the way clear for municipals. Most people are ready to bet the total will top last year's record. Some think the final count will edge above \$3.5-billion.

• **Sound Case**—That makes sense when you look at what's been happening to

towns and cities since the war's end.

Like industry, local governments have had to start on extensive—and costly—expansion programs. So far they have only scratched the surface. Despite the billions already spent, there is still a crying need for new schools, hospitals, and roads.

The money for this building just can't come out of surplus tax receipts. Rising costs of running the cities have taken care of that. Large-scale borrowing programs have been the only way the cities could lay their hands on needed cash.

The states' problem has been even more acute. Besides their own construction programs, they have had to pay out billions for veterans bonuses.

• **Good Demand**—Luckily, throughout most of the postwar years, there has been a brisk demand for municipal and state issues. Most of this is due to the fact that:

- The bonds are tax-exempt, as far as income taxes go.

- Everything points to income taxes staying high.

- Washington's "easy-money" policy has driven the yield on high-grade corporate bonds to unappealing lows.

The upshot has been that commercial banks, casualty and fire insurance companies, people in middle- and higher-income brackets have gone more and more to municipals. Along with the income advantages they, of course, bought security. For in a pinch, municipals are normally more salable, less affected by market slumps than high-grade corporates.

- **Taxes**—From a tax standpoint, investors have found municipal and state issues hard to beat. To match a 24% yield on a tax-exempt holding, an investor needs a 3% return on a taxable corporate bond, if he is in the 25% bracket. If he's in the 50% bracket, he needs a corporate with a return of 44%.

The same thing holds true with the corporation that buys municipals. A tax-exempt bond with a 2.70% yield gives it the same amount of income that it would get from taxable issues yielding 4.35%, after the 38% corporate levy.

- **No Armor**—Even though municipals are normally more stable than corporate bonds, there's nothing inviolable about their price structure. Standard & Poor's municipal-bond index shows their ups and downs. Since early 1946, they have zig-zagged from a high of 144.4 to a low of 122.4. Right now they are at about 132.

Some Wall Streeters feel pretty sure that municipal prices now are due for at least a small tumble—though that hasn't come as yet. They think they have spotted some signs of softness in the last couple of weeks.

For one thing, several syndicates

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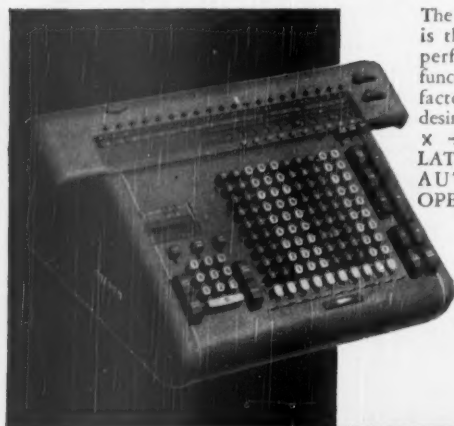


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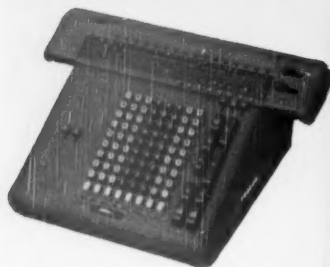
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holding "sticky" new offerings finally decided to disband and let the issues seek their own levels. For another, dealers' shelves are fairly well stocked. Early this week there were about \$140-million of undistributed new offerings piled up behind the counters. Although the inventory has been on the downgrade for the last couple of weeks, there are still a lot of people who find it a little too big for comfort.

What's behind it all? Probably nothing very serious. Most observers think it's merely belated recognition of the sag in Treasury bond prices. They feel it's nothing that can't be cured by more realistic price tagging.

• **Little Bounce**—Still, even these people don't expect the market to bounce right back as soon as prices are changed. They think the pattern for the municipals market may turn out to be higher yields, and thus lower prices, for the rest of the year. This is particularly true of the long-term high-grades.

Part of their reasoning is based on the fact that they don't look for Congress to raise either corporate or individual income-tax rates this year. Thus, tax-exempts aren't going to become more enticing. Further, the flood of new tax-exempts ahead will probably pretty well satisfy demand—something that hasn't been true up to now.

• **Technically Sounder**—As far as the amount of "float" goes, the corporate new-issues market seems to be in a much better "technical" position than the tax-exempts. Unsold remnants of new corporate bond offerings are at abnormally low levels.

That hasn't been true right along. Corporate dealers have had their share of sticky issues, mainly because of unrealistic bidding. To move some issues, there have been some sharp price cuts.

• **World Bank**—Both markets would be tickled to death to see the World Bank \$100-million offering cleaned up. To date, it has been the year's prize lemon because of the high price named by the winning bidder (BW—Feb. 4 '50, p. 77). The Street hears that between 40% and 50% of the bonds are still undistributed.

BEWARE THE GOLDEN FLEECE

The activities of some Canadian stock promoters have cost U. S. investors a lot of money, says the Securities & Exchange Commission this week in its annual report to Congress.

The extradition treaties with Canada don't cover fraud. So it's practically impossible for SEC to bring cases to trial. However, SEC believes that reputable Canadian securities dealers want to help the U. S. plug this loophole. SEC says that unscrupulous dealers are hurting sales on Canadian exchanges.

Prudent Man

Trustees of N.Y. trust funds will be allowed to use own judgment on investing 35% of funds if state bill passes.

There's a good chance that New York State will loosen up the old legal strait jacket on trustees—let them use more judgment in investing the money in their charge.

This week bills were introduced in the New York legislature to allow trustees to go outside the "legal list" in investing 35% of their trust funds. This would let them buy preferred and common stocks. The result would be higher earnings for the trust funds, and a bigger demand for securities that aren't on the legal list.

• **Restricted States**—New York is one of 12 states that restrict trustees to investing in a legal list of bonds, unless the deed of trust specifically gives them broader powers. In New York, this list is the same as that prescribed for fiduciary institutions, such as mutual savings banks and life insurance companies. It includes government and municipal bonds, railroad and utility bonds that meet prescribed earnings requirements, and a few industrials.

It's estimated that New York trustees handle about \$13-billion in trust funds, about one-third of all U.S. trust funds. About \$4-billion of this is in trusts that are limited to legal list investments.

• **Prudent Man**—In a lot of states, there are no such strings. Trustees can invest according to what's known as the "prudent man" rule. That is, they buy the bonds and stocks that a normally prudent man would buy to protect his own principal and bring a reasonable income.

• **Not So Protected**—As it works out, the legal list doesn't always give as much protection as the trustee's good sense. This point was borne out by a four years' study by a committee of the trust division of the New York State Bankers Assn. And it was this study that led to the new bills now up before the legislature.

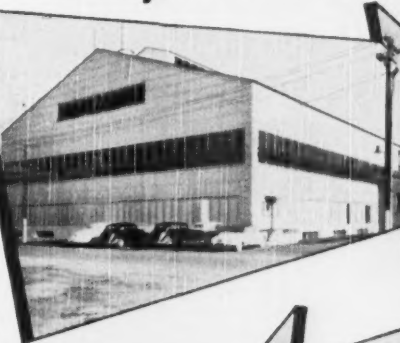
For one thing, bonds on the legal list aren't always safe. Bascom H. Torrance, vice-president of the City Bank Farmers Trust Co., New York, who headed the committee, says that more than \$800-million par value of bonds on the list went into default from 1928 through 1940.

The committee found that many bonds that weren't on the legal list were of comparable quality, but that the legal list bonds often sold at a premium, just because they were eli-

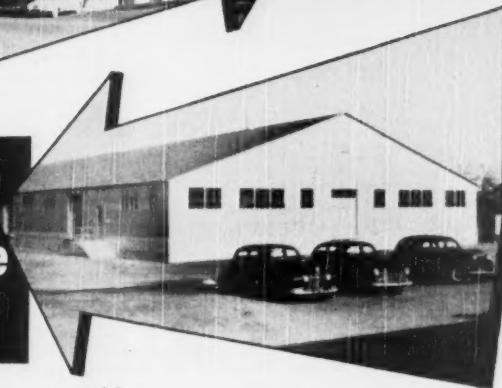
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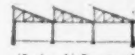
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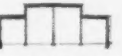
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"I make it a practice to visit the British Industries Fair because I find displayed there not only the traditional British products that enjoy established reputations, but new products of that same pioneering British spirit which has given the world the steam engine, the railway, radar, penicillin, and jet-propulsion," says J. Humphreys of the John Wanamaker Organization.

"Furthermore, such a visit is without question useful to the John Wanamaker Organization because of the fact that one can see so many manufacturers from all over the country under one roof."

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gible for savings-bank and trustee investments. Because they brought premium prices, their yield was less.

• **Wanted: Bigger Yield**—And trust funds need to have their yield increased, Torrance says. He points out that in 1928 a \$50,000 trust fund could easily produce an annual income of \$2,300. By 1937, the income had dropped to around \$1,900; by 1949, to about \$1,400.

• **Common Trusts**—One reason bankers are anxious to liberalize legal list

requirements is that they hamper the growth of common trust funds (BW—Nov. 26 '49, p. 76). These are funds composed of a number of trusts, usually small, which pool their resources to get diversification. Some of these funds are limited to legal list investments. In Pennsylvania, where trustees follow the "prudent man" rule, common trust funds have grown to a total of about \$219-million since 1943, when they started. In New York, they come to only \$52-million.



NETTLED by Wall Street brokers' ads like the one below, a New York building-and-loan association hit back in its window display. The Franklin Society for Home Building & Saving, located near the financial district in downtown Manhattan, featured a Lorelei sounding notes of 6%, 8%, 10%, 12% on her lyre.

The 2½-Percenters Hit Back

The promotional campaigns that Wall Street brokerage firms have been putting on during the current bull market have the building-and-loan associations up in arms.

So this New York window display hammers the weak points of investing in common stocks. Enlargements of newspaper headlines of the 1929 stock market collapse deck out a painting of a siren luring investors on with a song of large dividends.

A placard reads: "Put your hard-earned savings where their value doesn't go up or down." It suggests that people with money to save start a systematic savings plan to buy building-and-loan shares, which are based on home real estate mortgages.

Savings bank executives have also been burned up about the ads one Wall Street house put out, advising readers not to be "two-percenters," since this is the rate many savings banks pay.

NOT ~~2 1/2%~~ ~~3%~~ ~~4%~~ ~~5%~~
BUT 7% ...

That was just the average return of the 887 dividend-paying common stocks traded on the New York Stock Exchange, last year.

Some paid more, some less. But if yields like that interest you, why not write for a copy of our booklet called "Investment Facts About Common Stocks"? There's no charge. Just address—

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Stanford: 80 West Park Place—Tel. 6-7555



ADS LIKE THIS annoyed building-and-loan executives, whose associations usually pay from 2½% to 3% on their shares.

End of a Climb

Auto insurance rates show down or leveling trend. Reason: Losses drop as repair parts ease; better driving, new cars help.

Automobile insurance rates are turning the corner. They haven't made the downturn all across the board, but the postwar rise has pretty much come to a halt.

There are a lot of spots where rates are running counter to this trend—so don't reach for the phone book if your insurer hasn't pared your premiums. But here's what the over-all score is:

On physical-damage insurance—the kind that protects you against damages to your own car—the downturn has already come. Allstate Insurance Co., for one, recently cut its rates on passenger-car collision policies—a form of physical-damage insurance—by 11½% to 15½% in six states. This Sears, Roebuck subsidiary offers low rates by direct mail sales through the Sears catalog (BW—Dec. 4 '48, p96).

On liability insurance—which protects you against liability for damages to other people or their property—rates haven't dropped, but they have stopped climbing.

In the liability field, the downtrend shows up on the "bodily injury" part of policies. Rates have been cut somewhat on this type of insurance. On liability for property damage, on the other hand, many companies are still losing money. So property damage rates are still going up in many states. The net result of this two-way action is that the total premium on liability policies has more or less come to a standstill.

The rate changes apply to the fleet policy you carry on cars used in your business, as well as to your own car. Commercial rates, however, haven't fluctuated so widely as private car rates in the past few years.

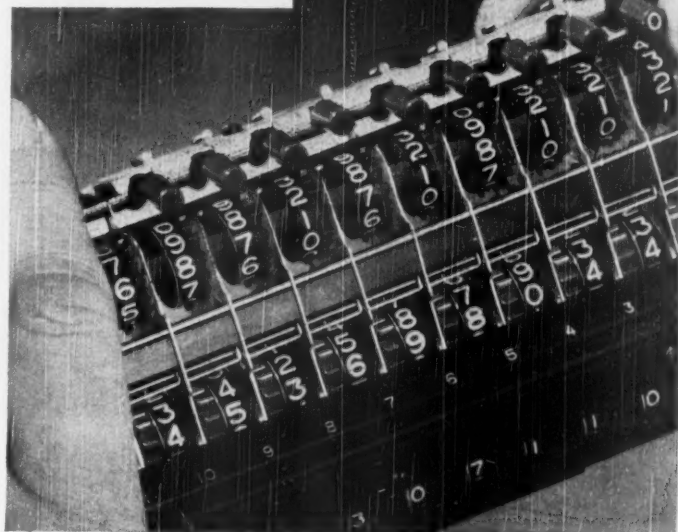
• **Caught Up**—What it all boils down to is that auto insurance has just about made its postwar adjustment.

During the war, auto liability rates on private cars were slashed. Gas rationing cut driving to the minimum, and people drove more carefully when they did drive. The cuts weren't so sharp on commercial vehicles, because these had to keep going anyway.

• **Upgrade**—After the war, most companies kept on at the low wartime rates, at first. The theory was that the safe-driving habits would carry over.

But it didn't work out that way. Accidents increased; driving losses climbed. Inflation drove up repair

ANOTHER IMPROVED PRODUCT
BY A MANUFACTURER
USING A DU PONT PLASTIC



NYLON PLASTIC PARTS FOR MONROE CALCULATORS COST 67% LESS

*29 production steps eliminated in making two
extra-durable parts to tolerances as close as 0.0015 inch!*

Here's an excellent example of wedding product-improvement to cost-cutting. Monroe Calculating Machine Company, by using DuPont nylon plastic for counting dials and cams on their calculating machines, gets more durable service from these parts—and through savings in material and operations, cuts costs of the completed parts by 67%. Production steps are cut from 33 for former metal parts to only four for nylon. A third part, a new ratchet, is of an improved design so intricate it is possible only with nylon.

These nylon parts are molded to tolerances as close as 0.0015 inch. In actual performance tests of millions of cycles—beyond normal machine life—nylon showed hardly any measurable evidence of wear, while wear on metal parts was clearly visible. In addition, the high abrasion resistance of nylon eliminates the need for lubrication and subsequent dial cleaning,

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Your Trade-mark on a Zippo!

Company trade-marks can be reproduced on Zippo Lighters at low cost. And — these famous lighters can also be engraved with the actual signatures of your business friends!

Poor Guy! You could have made him so happy with a Zippo . . . It's the gift men want because it's the lighter that never fails. So if your business gift didn't make the hit you hoped it would . . . give Zippo next time. You'll know for sure it will be appreciated!

ATTRACTIVE QUANTITY DISCOUNTS! Zippo Lighters are priced from \$3 to \$175*—engraving \$1 extra. Write for FREE brochure showing models and special discounts for quantity business gifts. Zippo Mfg. Co., Bradford, Pa.

*Plus tax on sterling silver and solid gold models only.



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costs, increased the size of bodily injury settlements. Then the postwar cars themselves contributed to insurance losses. They are expensive to repair.

Result of these three factors was to increase insurance company losses, drive insurance rates up. But with the 1948 rise, the companies finally caught up with themselves.

• **Downgrade**—Meanwhile, forces to pull the rates down again began to work. Competition returned to the auto-repair field; it became a lot easier to get new parts. Since then, most companies have gone pretty well into the black on physical damage policies. Hence the rate cuts of recent months.

Other factors have helped. There are now fewer accidents in proportion to the number of cars insured. People are driving more carefully. Cars and trucks are newer, in better shape. So, even though the size of the average claim is still rising in both the auto-liability and the physical-damage fields, over-all losses aren't what they were.

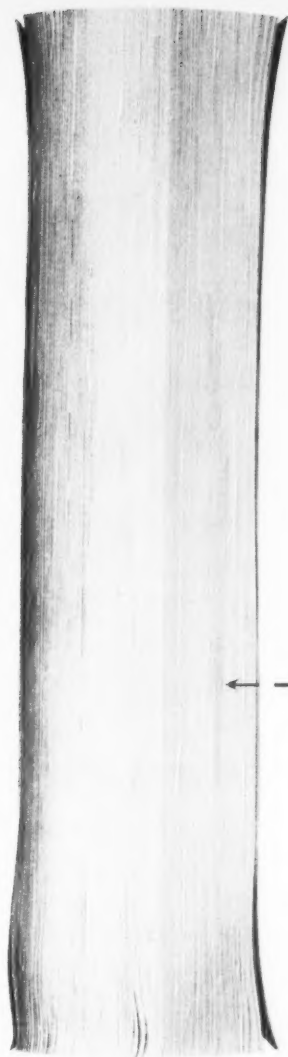
• **Problems**—There are still plenty of buts to all this. The deviations from the trend are most plentiful in the field where the downtrend is most marked, physical-damage insurance. Here the rate pattern is particularly involved. Physical damage includes several types of collision insurance, insurance against fire and theft, and a "comprehensive" policy that protects your car against most perils except collision. For each of these policies, rates vary with a car's price range, age, and location. Since there are several hundred different rating "territories" in the U.S., and 16 different rate classes for cars, there's a lot of room for rate variation.

• **Ah, Youth**—Biggest problem that companies writing auto liability face is the young driver, who has more than his share of accidents. About 31% of the drivers involved in all fatal accidents in 1948 were under 25. And 27% of the 15.5-million drivers involved in all accidents for 1948 were in this age group. That's why liability rates are higher on cars that are driven by the younger set in most states.

Ashland Oil & Refining Grows and Grows

For the third time in four months, Ashland Oil & Refining Co. has taken on a new oil company. The latest is Frontier Oil Refining Corp., Buffalo, N. Y. Ashland will get Frontier's stock in return for about \$2-million worth of its own common and preferred.

Frontier has a refinery at Buffalo with a daily capacity of 10,000 bbl. a day, plus a pipeline system in the Illinois



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Yellow, when it's the 'yellow pages' in the Classified section of the telephone directory, means just one thing to buyers of all sorts of products and services . . .

"Here's where I can find who sells it."

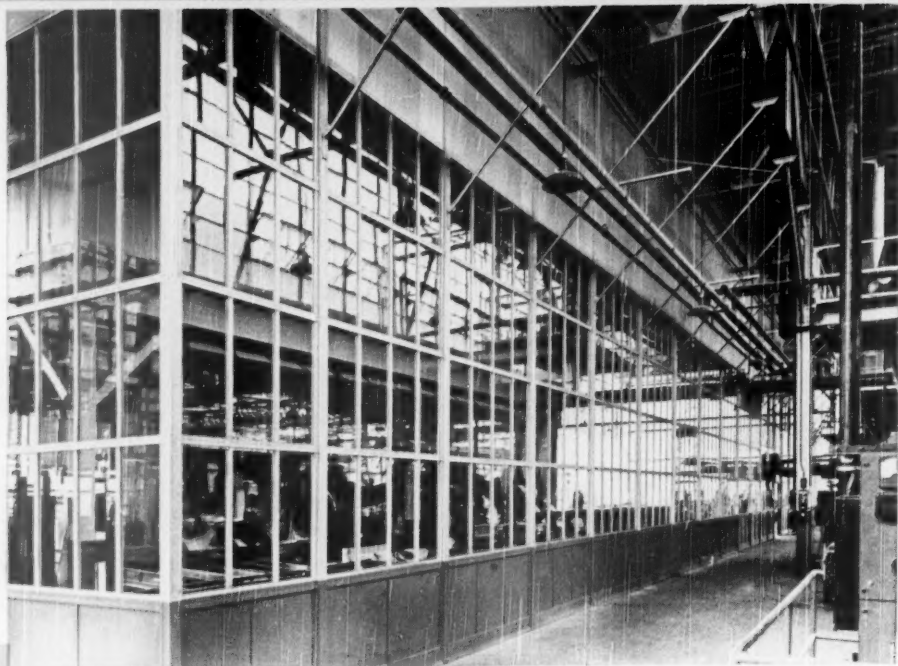
Your trade-mark or brand name in the 'yellow pages' over a list of your dealers . . . tells prospects where to find your product quickly and easily. This is called Trade Mark Service.

Your dealers recognize the value of having their names and addresses brought to the attention of ready-to-buy prospects. This sales support helps them reach the 9 out of 10 shoppers who use the 'yellow pages.'

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HAUSERMAN *Movable Steel Walls* are tailored to fit your plant . . . today . . . tomorrow . . . for the life of the building. These solid, rigid walls will control traffic, sound, drafts and dust and isolate test rooms and supervisory personnel.

Hauserman *Movable Steel Walls* also assure efficient utilization of *all* floor areas for the life of the building because they can be quickly and inexpensively moved . . . often in a matter of hours . . . whenever new

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oil fields, and about 100 owned or controlled service stations. Like the other companies acquired by Ashland, it will operate as a subsidiary.

• **Earlier Deals**—The companies that Ashland picked up previously, also through exchanges of stock, were Aetna Oil Co., Louisville, Ky., and Freedom-Valvoline Oil Co., Freedom, Pa. Aetna had a refinery at Louisville and sold its products through 200 owned or controlled service stations in Kentucky and Indiana. Freedom-Valvoline, a refiner of Pennsylvania-grade lubricating oils, has two Pennsylvania refineries.

• **Financial Status**—Ashland reported earnings of \$5.30 per common share for its fiscal year ended Sept. 30. That was a substantial jump from 1948 earnings of \$4.67 and 1947 earnings of \$2.82.

Ashland had total assets of \$67-million on Sept. 30. It's hard to tell how its recent acquisitions have increased its size, since only Freedom-Valvoline's assets (about \$9-million) have been reported.

FINANCE BRIEFS

Floyd Odum's Atlas Corp. made about \$16.5-million from its share in Barnsdall Oil, which it sold to Sunray Oil (BW—Feb. 18 '50, p25). About \$4.1-million of the take was in dividends.

Record profits and sales were posted by Studebaker. Earnings hit \$27.6-million, up 44% from 1948; sales, at \$473-million, had a 23% jump.

Commonwealth Edison will raise \$90-million in new money to help finance its \$290-million construction program for 1950-53.

Another Hilton: West Coast real estate operator Roy E. Crummer will build a Beverly Hills hotel which Hilton will run. Finished in 1951, it will be the 14th unit in the Hilton chain.

SEC wants Atlas Tack Corp. to get down to brass ones. It's seeking a court order to make Atlas comply with reporting requirements. SEC says Atlas hasn't filed annual reports for 1948 and 1947, has filed only three quarterly reports since Jan. 1, 1946.

Texas Eastern Transmission last year topped 1948 profits by 33%, 1948 sales by 37%. Shares earned \$1.58, compared with \$1.18 the year before.

Arizona's sales tax will bring in an extra \$5-million this year. The state Supreme Court ruled that farm products, which were generally exempt, have to be taxed.

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Our letters look
100% better lately"



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The right paper can make all the difference in the vital first impression your business letters make. On Hammermill Bond's firm, snow-white surface both the typing itself and your printed letterhead stand out with new clarity and impressiveness.

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BW-3-15

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... Originators of the postage meter ...
Offices in 93 cities.



Trusteed Trust

Package plan of Mass. Hospital Life allows investor to buy into investment trust when he sets up trust fund.

Massachusetts Hospital Life Insurance Co., venerable Boston concern, is offering a new kind of investment package—one that is shaped and trimmed specifically for the man who wants to set up a trust fund.

For the average investor, that's quite a task. First, there are legal problems: the form of the trust, who should benefit, and how. Then there's the financial problem: what sort of securities you should put in it.

There might be an answer in the growing crop of discretionary trust funds set up by banks (BW—Nov. 26 '49, p. 76).

But maybe you want more diversification than some common trusts can offer (page 111). In that case, open-end investment trusts might suit you better (BW—Feb. 18 '50, p. 97).

• **Two in One**—The plan worked out by Massachusetts Hospital Life does two jobs for you at once. What it gives you is a double-decker trust. Ordinarily, if you want to build a trust fund on shares in an investment trust, you go through two steps. First you buy into the investment trust; then you set up your fund. Under the Massachusetts package, when you set up a trust fund, you in effect buy an interest in an investment fund with the same money.

In operating the plan, Massachusetts Hospital Life works with an affiliated open-end investment trust—Massachusetts Life Fund. This affiliate, founded by Massachusetts Hospital Life, was registered under the Investment Co. Act of 1940. Hospital Life acts as the fund's sole trustee and investment manager.

In its actual working, the plan is very simple. You tell Hospital Life you want to set up a trust fund—\$100,000, say—for the benefit of your wife, with the company acting as trustee. Then the company takes your \$100,000 and invests it in Massachusetts Life Fund.

• **On Your Terms**—You can arrange for any sort of trust you want, subject only to state laws. You can stipulate that the income from it be paid to you while you're alive, that the principal go to your wife at your death. Or you can have the trust continue to operate with the income accruing to your widow and the principal paid to some other beneficiary after her death. It can be revocable or irrevocable.

Naturally, the plan isn't for free. You have to pay a loading charge—7%

of the amount invested if the fund is \$10,000 or less, and a lower fee as the investment goes above that figure.

• **Contrasts**—In many ways, operation of the Massachusetts Life Fund is like that of other companies in the mutual fund field. But in several important respects, it's quite different.

For one thing, the fund doesn't sell shares or deal directly with the public the way other open-end investment funds do. Whatever financial benefits accrue from its operations (after deduction of operating expenses) are reserved exclusively for the trusts called for under the investment plan. For the money so entrusted is all that ever finds its way into the fund.

The fund doesn't even sell shares to those setting up the trusts managed by its parent. Instead, owners of the trusts get from the parent company certificates that indicate their proportional ownership of the fund's assets.

• **Long Ago**—Way back in 1818, Massachusetts Hospital Life Insurance Co. started out as a straight life company.

By 1823, it began to show some of the signs of a 1950-style conservative investment trust. It was advertising that it would "receive" monies to be held "in trust for a given life or lives" which it would invest in the manner that the company "shall judge most advantageous, having always in view the safety of capital rather than the greatness of income." By 1867, it had given up the insurance business altogether.

A list of some of its clients reads like a history of American letters. Henry Wadsworth Longfellow was one who came to the company for investment advice. So did Daniel Webster, Oliver Wendell Holmes, Harvard presidents Eliot and Lowell. One of its jobs, since 1827, has been to handle a \$15,950 trust fund bequeathed by Benjamin Franklin in 1790 to the City of Boston. It has already paid over some \$800,000 to the city out of this fund.

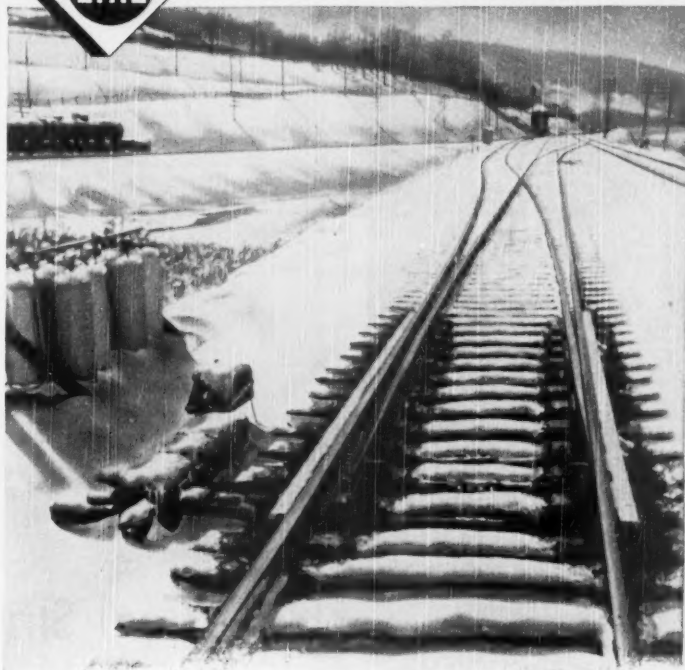
• **The Fund**—The Massachusetts Life Fund is nowhere near so hoary. It grew out of a reorganization plan consummated early last year. At that time, Massachusetts Hospital Life separated its deposit or investment business from its activity in annuity contracts and other operations. As capital, the fund got assets from the parent valued at around \$11.5-million.

Under its charter, Massachusetts Life Fund can hold a varied line of securities. It can also invest up to 10% of its gross assets in loans secured by first mortgages, real estate, or by pledge of personal property. At the close of 1949, about 6.15%, or \$733,000, of its assets were so invested.

There's one other point on which the fund is unique. It's the only open-end investment fund under the supervision of a state banking department.



... Mark of PROGRESS in Railroading



The flame with the 14-mile reach

AS YOU RODE A TRAIN on a cold winter's night, you may have caught sight of a bundled-up trackman standing near a switch with a lighted torch. His job is to make sure that ice and snow don't lock the switch in one position.

The Erie Railroad has improved on this practice by installing remote-control gas heaters on switches. These are operated by a dispatcher from a control point as far away as 14 miles—or even farther!

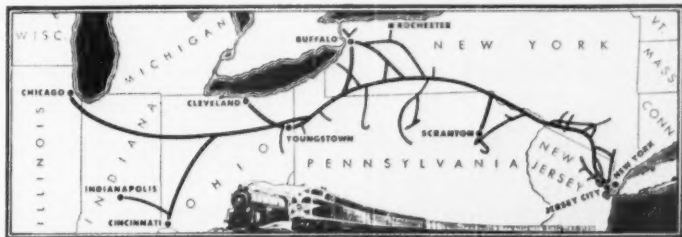
As he traces the progress of the train over his control board, the dispatcher starts the heaters by turning a control switch. Electric current ignites the gas and the flame shoots along the under part of the railhead. Away go the ice and snow,

leaving the switch clear for safe operation!

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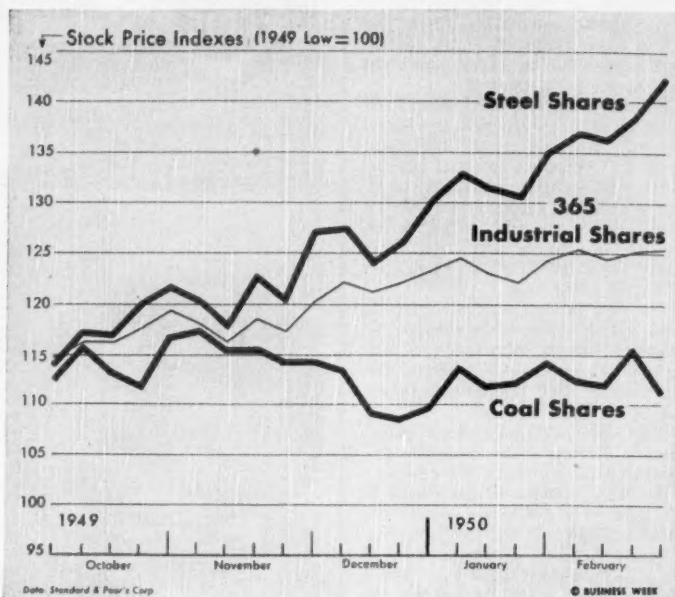
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THE MARKETS



How Coal Strike Hit Market

It didn't—except in coal shares. Industrials held up well. Steel's showing was especially strong, and traders look for good steel earnings. But oil and gas make coal outlook gloomy.

The stock market is saying that the coal strike was bad for the coal industry, but not bad at all for business in general. The market held up well all through the strike. This is particularly true of steel shares, even though the industry had to cut down operations in the last stage of the strike (chart).

The stock market buys the idea that now the strike is over steel will make up for lost time, show good earnings in 1950.

Of course, steel stocks didn't do badly in 1949, and that undoubtedly

has a lot to do with the market's affection for them. Fourth-quarter profits held up well considering that the steelworkers' strike cut the industry operating ratio to an average of only 53% for the three months. That suggests the industry has lowered its breakeven points.

With steel going full blast again, traders are hoping steel stocks are about to stage another upward rush. They are looking for stock splitups and higher dividends in this group.

• **Gloom on Coal**—Most traders are less hopeful about coal. They expect the industry will operate at peak capacity for a while. But they think it will eventually work itself into the same box it was in last year. During most of the time since June the miners operated on a three-day week, output was around 8-million or 9-million tons weekly, compared with an average 12.5-million in 1948. Nearly all the rest of the time the miners were on strike. Even so, coal stocks did not get dangerously low until late January (BW—Jan. 28 '50, p. 25). The demand just wasn't there.

Moreover, coal shares are uncom-

Security Price Averages

	This Week	Month Ago	Year Ago
Stocks			
Industrial	168.0	168.4	146.5
Railroad	44.0	43.9	39.8
Utility	86.0	85.6	70.2
Bonds			
Industrial	102.4	102.1	97.1
Railroad	86.6	86.3	84.8
Utility	100.8	100.9	95.2

Date: Standard & Poor's Corp.

fortably high in comparison with pre-war—much higher than steels. Standard & Poor's weekly index of coal stocks went down all through the 1930's. It hit its low point of 46.3 in 1939; in 1948 it was up to 288.1. Steel reached its depression low (24.9) in 1932, climbed to its high (184.6) before World War II, in 1937. The highest since then was 159.5 in 1946.

Coal got a big boost from: (1) the scarcity of competing fuels during and immediately after the war; and (2) the big postwar exports of coal—which dropped off after 1948.

• **Competition**—Since 1948 oil and natural gas have been crowding coal hard.

Under the pressure of rising labor costs, the industry has already priced itself out of some of its markets. No such threat has appeared on steel's horizon.

Wall Street hasn't lost sight of coal's position as an almost inexhaustible source of cheap energy. But it is not overlooking two recent events: Pittsburgh Consolidation Coal Co. shut down its pilot plant that has been making synthetic gasoline from coal, because the cost of coal in relation to crude oil had risen so much since the project started (BW—Jan. 26 '50, p. 26). And anthracite has started coming into this country from Wales for the first time since before the war.

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Massachusetts

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WRITE TO: Massachusetts Development and Industrial Commission, Room 1078, State House, Boston 33, Massachusetts, on your letterhead, please.

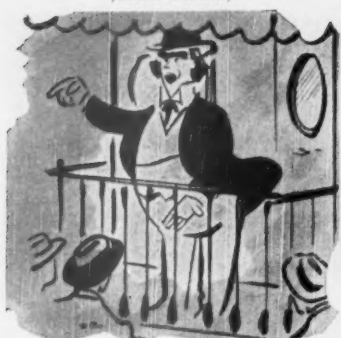
1949-50 Bull-Market Gains: A Sampling

Industrial Common Stocks	June 1949 Low	Subsequent *High	Mar. 1950	Bull-Market Gains Maximum	At Present
Dow-Jones Average.....	161.60	208.03	203.69	26.9%	26.0%
Allied Chemical.....	\$165.00	\$211.50	\$208.00	28.2	26.1
American Can.....	88.12	119.00	110.75	35.0	25.7
American Smelting & Refining.....	39.25	57.87	53.37	47.4	36.0
American Tobacco.....	69.50	76.75	73.25	10.4	5.4
Anaconda Copper.....	25.12	**31.00	29.25	23.4	16.4
Armstrong Cork.....	38.62	52.00	50.25	34.6	30.1
Bethlehem Steel.....	23.12	35.00	34.12	51.4	47.6
Chrysler Corp.....	44.12	68.37	65.12	55.0	47.6
E. I. du Pont de Nemours.....	43.25	64.50	62.50	49.1	44.5
General Electric.....	34.00	47.00	46.37	38.2	36.4
General Foods.....	40.75	50.50	50.12	23.9	23.0
General Motors.....	51.87	78.38	75.25	51.1	45.1
Gimbel Brothers.....	12.25	**16.50	14.50	34.7	18.4
B. F. Goodrich.....	52.50	85.00	83.50	61.9	59.0
Gulf Oil.....	56.75	**70.75	60.62	24.7	6.8
International Harvester.....	22.75	29.37	27.62	29.1	21.4
Johns-Manville.....	30.50	50.12	47.25	64.3	54.9
Kennicott Copper.....	44.00	55.00	52.37	37.5	30.9
Loew's, Inc.....	16.12	18.75	17.00	16.3	5.5
National Steel.....	73.50	103.25	102.00	40.5	38.8
Pacific Mills.....	27.12	34.87	30.50	28.6	12.5
Radio Corp.....	9.62	15.75	14.50	63.7	50.7
Sears, Roebuck & Co.....	35.87	44.37	43.62	31.0	28.8
E. R. Squibb.....	27.00	40.00	39.00	48.1	44.4
Standard Oil Co. (N. J.).....	60.25	74.87	67.00	24.3	11.2
Studebaker Corp.....	16.75	29.75	27.50	77.6	64.2
Swift & Co.....	27.62	37.50	36.75	35.8	33.1
Union Carbide & Carbon.....	33.75	45.75	43.12	35.6	27.8
United Fruit.....	44.25	61.25	58.00	38.4	31.1
United States Rubber.....	33.00	44.62	42.75	35.2	29.5
United States Steel.....	20.25	31.87	31.12	57.4	53.7
Westinghouse Electric.....	20.75	34.37	33.25	65.6	60.2
Zenith Radio.....	21.00	52.25	44.50	148.8	111.9
Railroad Common Stocks					
Dow-Jones Average.....	41.03	56.60	55.52	37.9	35.3
Atchafon, Topeka & Santa Fe.....	\$80.00	\$110.25	\$105.00	37.8	31.3
Atlantic Coast Line.....	32.50	47.00	45.50	44.6	40.0
Chesapeake & Ohio.....	29.75	**32.37	29.87	8.8	0.4
Great Northern (Pfd.).....	33.25	44.25	40.87	33.1	22.9
Illinois Central.....	23.37	39.00	36.37	74.3	62.6
Louisville & Nashville.....	31.62	**40.62	39.25	28.5	24.1
New York Central.....	9.25	13.87	13.00	50.0	40.5
N. Y. Chicago & St. Louis.....	56.00	110.62	106.00	97.5	89.3
Norfolk & Western.....	49.75	**53.50	52.25	7.5	5.0
Pennsylvania.....	14.12	18.25	17.75	29.2	25.7
Southern Pacific.....	32.50	54.37	52.00	67.3	60.0
Southern Ry.....	25.12	38.12	34.50	51.8	37.3
Union Pacific.....	73.25	89.00	87.75	21.5	19.8

* These represent new 1949-50 highs except where otherwise marked.

** Not 1949-50 high; latter was registered prior to June.

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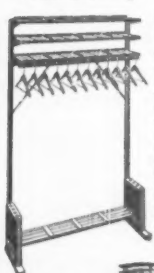
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LABOR



COUNTING VOTES in GM union-shop poll was a big job for NLRB—the first of many.

Union-Shop Issue Gets Hot

UAW, steel, and electrical manufacturing unions are pressing for union-shop elections. Goal: more union security. CIO drive puts heavy load on NLRB: polling some 2.5-million workers on issue.

CIO's big unions are showing a sudden interest in the union shop. You see it in auto, steel, and electrical manufacturing industries. CIO's interest is part of a concerted plan to tighten union-security safeguards. And it confronts the National Labor Relations Board with its most complex job yet—polling some 2.5-million workers in thousands of plants.

The unions want something more binding than their present dues-checkoff contracts. The union shop fills the bill—letting employers hire nonunion men, but requiring them to join the union. Under Taft-Hartley, a union can bargain for a union shop only after more than 50% of all employees authorize one in an NLRB election. Even then, the union shop remains subject to bargaining.

It's not that the big CIO labor organizations feel especially shaky right now. Most have had union-shop security as a long-term objective, but until now have compromised for economic gains.

• **UAW's Plans**—Take the case of the United Auto Workers (CIO). UAW has talked about union-shop security for years, but let the issue slide. Right now only one of its major contracts—

with Ford Motor Co.—has a union-shop clause. But this year UAW says it's going all-out to get security clauses in its contracts.

Last week, UAW won the right to demand a union shop from GM in NLRB's biggest poll to date covering 262,457 "regular" employees of GM. There were 193,579 "valid" votes: 171,629 (or 88.6%) for union-shop bargaining, 21,950 against it.

• **How Big?**—On the face of it, that's impressive. But from a legal standpoint it's not nearly as decisive as it appears. Only 65.4% of the "regular" employees voted for the union shop. What happened to the rest—besides the ones that voted against it? UAW challenged 32,407 of them; 36,471 weren't interested enough to go to the poll.

For its propaganda value, UAW stuck to its claim of a 88.6% vote for the union shop. Here, it said, was a "mandate" to write a union-shop clause into the 1950 GM contract (page 131). And it said that, as a result of the "overwhelming" sentiment for a union shop at GM, it's going to prepare petitions immediately for votes at other UAW plants.

• **Caterpillar Poll**—At the same time, UAW had little to say about another

recent union-shop election at the Caterpillar Tractor Co. plant in Peoria, Pro-union-shop employees there fell 100 votes short of meeting T-H requirements.

What beat the union shop at Peoria was a plant squabble between UAW and the Farm Equipment Workers (ex-CIO). UAW took the plant away from FE a year ago, but FE still has a strong minority. This minority saw the proposal as a squeeze play, so it either voted "no" or didn't vote at all.

• **Electrical Workers**—That kind of situation is likely to pop up again, and often, when the CIO's International Union of Electrical Workers opens its drive for union-shop pacts. IUE is sitting tight until its jurisdictional feuds with the United Electrical Workers (ex-CIO) are settled. Then it plans to petition for union-shop polls wherever it has contract rights. The idea is to nudge UE members out of the picture. UE knows this, and will do anything it can to defeat IUE's proposal.

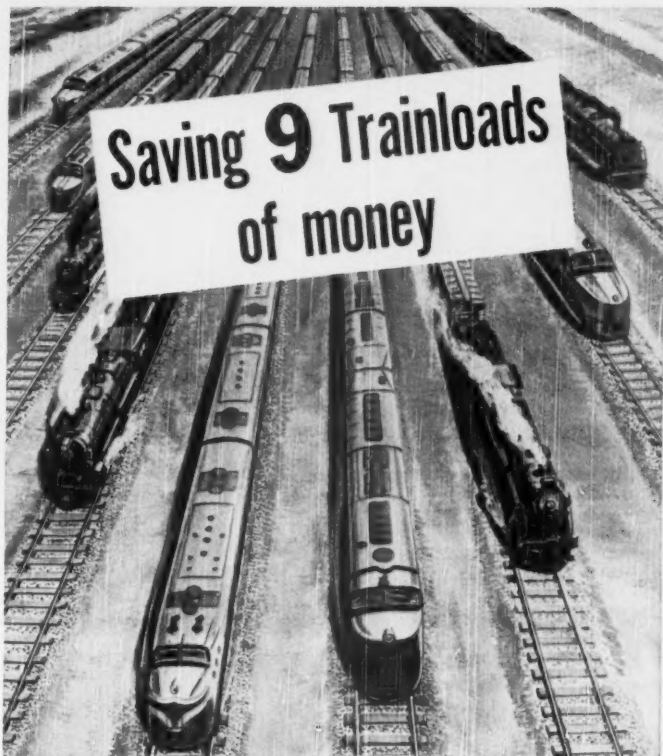
• **Steelworkers**—CIO's United Steelworkers is the third major industrial union now readying petitions for union-shop elections—even though its contracts run into 1951, and union-shop demands can't be served on employers until then. Present contracts were signed before USW qualified under T-H, and could ask for union-shop polls. But, looking ahead, the union left a loophole: It got a stipulation that whenever USW wins union-shop elections prior to 1951, employers will put into effect a modified form of union shop—a maintenance-of-membership plan.

• **2.5-Million Workers**—Normally, whatever CIO's auto, electrical, and steel unions do is followed by other CIO unions as policy. So the prospective union-shop drive may spread far beyond the 2.5-million coverage that's now foreseen.

Even if it doesn't, NLRB will more than have its hands full. Recently, the board asked Congress for more funds so it could handle complex union-shop elections promptly.

• **Other Solutions**—However, the preponderance of pro-union-shop sentiment in elections held so far has convinced many congressmen that a change in the law—rather than more money—is the answer. Since there's little interest in touching the law at all this year, Congress may bring a halt to union-shop polls in another way: by simply failing to appropriate the funds NLRB would need to hold them.

The board then would have to take the same attitude toward the union shop in industry that it now takes in construction: that is, if the union negotiates a contract containing a union-shop clause, and the members ratify the pact, it's O.K.



Imagine a solid trainload of dollar bills, and you'll have a picture of how much a billion dollars is.

Now imagine 9 such trainloads of money, and you will have a picture of how much railroads saved last year as compared with what it would have cost to handle 1949 traffic, at present wage and price levels, had railroads operated at their 1921 level of efficiency. And you—the people of the United States—have received the benefit of these savings in rates much lower than they would otherwise have had to be.

Compared with even so recent a year as 1939, the saving through greater efficiency is more than 2½ billion dollars a year.

Ninety per cent of the cost of producing rail service is in man power and materials—and in 1949 the railroads paid \$2.25 for the same units of man power and materials which in 1921 cost only \$1.00. But even with such increases, rail-

roads produced freight and passenger service in 1949 for charges which averaged only 3 per cent higher than in 1921.

The big reason for these great gains in efficiency is the investment since 1921, of 17 billion dollars for such new railroad "tools" as Diesel locomotives and centralized traffic control, which were unknown in 1921, as well as for improved tracks and terminals and signal systems, new and better cars, and for improved maintenance and repair facilities.

Each of these improvements resulted in savings which were cumulative year after year, and led in turn to other improvements. Each gave the public better service, and each helped to keep charges for railroad transportation down.

The same skill, ingenuity and determination which saved these billions are still at work on the railroads, striving to provide better service with greater efficiency.

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NOW foreman pays workers in person, by weekly checks. It's a bid for closer management relations.

Ford Ends Cash Era, Switches to Checks

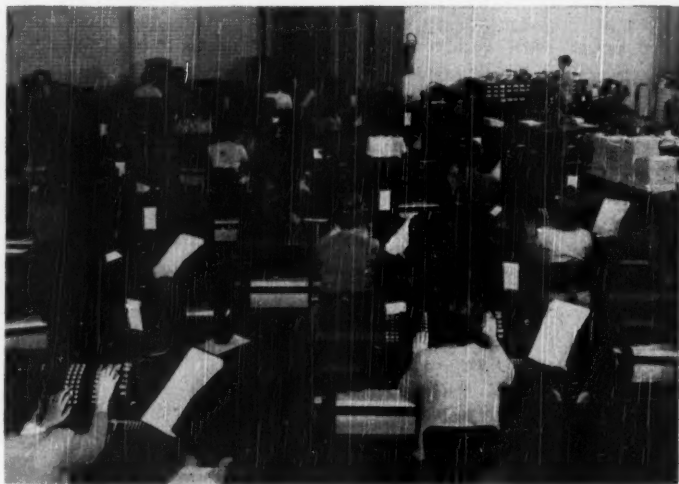
Not so long ago Ford Motor employees used to say: "Every day is payday at the Rouge." Pay schedules at the various departments were set up so that at least one department in the plant got paid every day. Payments were biweekly in cash.

The saying no longer holds. All of Ford's 106,635 hourly employees now are being paid each Friday—by check.

It marks the end of an era at Ford, and in Detroit. Ford was the last of the big auto companies on a cash payroll. Its workers were paid in cash for over 30 years. Over that period, almost \$10-billion was paid out in cash to Ford employees. During the war years, a single payroll on some days reached \$1.5-million, and during one month, as much as \$41-million in cash was paid out.

• **UAW Idea**—The United Auto Workers (CIO) asked for the change in 1941. It said that workers' budget problems would be reduced if pay came through every week. Other union—and company—reasons for the change: elimination of pay lines (company officials estimated that departments were losing a half-hour of production time each payday); increased accuracy; elimination of pay receipts; one recurring deduction each week, instead of an almost interminable number.

The war delayed the change-over in 1941. But after the war, Ford began preparing for a weekly check payroll. N. K. Abbott, of Ford's controller's office, devoted two years to preliminary planning. He revised and simplified



MAKING OUT CHECKS

using machines developed for Ford by National Cash Register Co. at \$560,000 cost. The machines in all Ford plants also post earnings and deductions, maintain payroll journals.

Ford's accounting forms, and helped the National Cash Register Co. develop special check writing machines expressly engineered to meet Ford's particular needs.

• **Thinking Machines**—Costing \$560,412, the 85 payroll machines do almost everything but endorse the checks. They (1) make out checks and fill in net and gross earnings and deductions on the stubs; (2) post earnings record cards which show hours worked, gross pay,

deductions, withholding tax balanced to date for the current year, total earnings to date for the current year, and U.S. Savings Bonds balances; (3) prepare a check register, which shows the number and net pay of each check; (4) maintain a payroll journal, which is a record of gross pay, net pay, and deductions for each employee; (5) prepare individual quarterly reports which are used by the federal government in determining social security benefits.

and (6) at year's end make out W-2 tax forms, showing total earnings and tax withheld.

• **Morale Booster**—Ford labor relations men believe employee morale is getting a lift from another change under the new payroll plan. Instead of an impersonal paymaster, foremen personally hand out checks to their employees. Ford thinks the worker under such circumstances may soon associate the foreman more closely with management—thus narrowing the gap between labor and management.

Ford workers won't have much trouble turning their checks into cash. Before the change, Ford set up fixed payroll funds in banks in cities where Ford plants are located. Workers can cash their checks at these banks without any charges—since the company absorbs all cashing costs. Workers who want to cash checks immediately, without going to the bank, can do so at a Brink's, Inc., pay truck, stationed off company property.

75¢ May Not Hurt

Wage-Hour Administration thinks hiked wage floor hasn't hurt industry as much as some expected.

What has happened to jobs in low-pay industries since the legal minimum hourly wage went up to 75¢? And what is the effect on the low-pay industries themselves?

Nothing serious, thinks the Wage-Hour Administration. It believes that the change-over was made without the wholesale firings of below-75¢ workers that many predicted. And so far it has seen no evidence of large-scale plant shutdowns because of the new law.

That's pretty much the same thing that **BUSINESS WEEK** found in a check of several low-pay industries: By and large, the new 75¢ minimum hasn't caused much trouble for anyone.

• **Survey**—Last week, the Wage-Hour Administration set out to prove the law hasn't hurt business. It asked Congress to appropriate funds for a survey of the impact of the higher minimum on industry and on jobs.

Wage-Hour Administrator William R. McComb says the government ought to find out the extent of (1) plant closings, (2) layoffs, (3) direct raises due to pay hikes to the new 75¢ wage floor, and (4) indirect raises required to maintain differentials for workers earning more than 75¢ an hour.

He wants the facts—but he's pretty sure what they will show. He's pretty sure that the only mills forced to close because of the higher minimum have



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Gone are the days when barnyard duty called for rubber boots, pitchforks, and good strong backs. Today, on many modern farms, one man sits comfortably on the seat of a Ferguson Tractor while he scoops, lifts, and loads the spreader by tractor power. Then he hooks his tractor to the spreader, and spins across the field scattering a blanket of gold that turns lush green when the growing season is on.

Borg-Warner's Detroit Gear Division supplies the transmission, rear axle, and hydraulic pump for all Ferguson Tractors. Other Borg-Warner Divisions supplying vital parts for the

tractor are: carburetors by Marvel-Schebler; clutches by Rockford Clutch; steering gear sectors, leveling box gears, axles and differentials by Warner Automotive Parts. In addition, Ingersoll Steel Division furnishes parts for the directly attached tools originated and offered by Ferguson.

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been uneconomical, inefficient, or "parasitic" plants capitalizing on low wages and hurting the industry as a whole. That opinion is based on wage-hour reports from the field and on letters protesting the boosted minimum wage.

I. Southern Discomfort

So far, most complaints against the 75¢ wage floor have come from traditionally low-pay areas in the South. Of an estimated 14-million workers who got direct raises when the minimum was hiked, about one-third were in the South. Most were unskilled or semi-skilled workers in relatively small plants and mills; most were located in underdeveloped, rural sections.

When the new minimum went into effect, a check of the South showed: Half the workers in the lumber industry were getting 50¢ to 60¢ an hour. Many workers in garment, unorganized textile, and hosiery plants were being paid 50¢ to 65¢ an hour; and many workers in tobacco, food processing, and canning plants were getting 40¢ an hour and up.

Employers protested that industry couldn't afford to boost hourly pay in amounts varying from 10¢ to 35¢ an hour. But since then, apparently, most employers have succeeded in doing it.

• **Minor**—Hosiery mills in North Carolina experienced "some reductions" in work force due to the new 75¢ hourly minimum. So did sewing and garment mills and some food-processing plants. But in all instances, layoffs were minor—and due at least in part to general conditions in the industry.

For instance: Layoffs in the below-75¢ wage group in hosiery mills were paralleled by layoffs of higher-paid, skilled knitters. Production needs had slipped sharply, and many mills were dropping unprofitable hosiery lines.

For the South as a whole, with the new 75¢ hourly minimum in effect:

• Total employment in every low-pay industry appears to be holding up.

• New compensation claims show no appreciable rise—and, significantly, few unemployed claim that layoffs were due to the rise in the wage floor.

• Southern wage-hour people estimate that raises to comply with the new minimum have added \$1-million to payrolls.

II. Case Study: Alabama Lumber

Why, then, the recurring complaints about hardship caused by the increase to a 75¢ hourly minimum? To try to find out, BUSINESS WEEK has taken a close look at the sorest point: the Alabama lumber industry, where almost 1,000 mill workers lost jobs when employers shut down marginal operations.

The lumber industry in the state is

generally healthy. Lumber prices have been high since the end of the war. The lure of substantial gains has led many companies to open marginal mills—frequently inefficient, in third and fourth-grade stands of lumber.

In addition, many companies have been running portable sawmills in the woods, using older workers (55 to 70 years old, mostly Negroes) to operate them. Pay in these portable, small-production operations has been around 55¢ an hour. According to one manager of 10 of these portable sawmills, workers employed on the field jobs mostly "have worked for the company for many years, and we have tried to keep them employed. They can produce enough to warrant us paying them 50¢ to 60¢ an hour—but that's the top limit."

When the 75¢ minimum went into effect, some of the marginal sawmills needing rock-bottom operating costs closed up. And most big companies shut down their less economical portable sawmill operations.

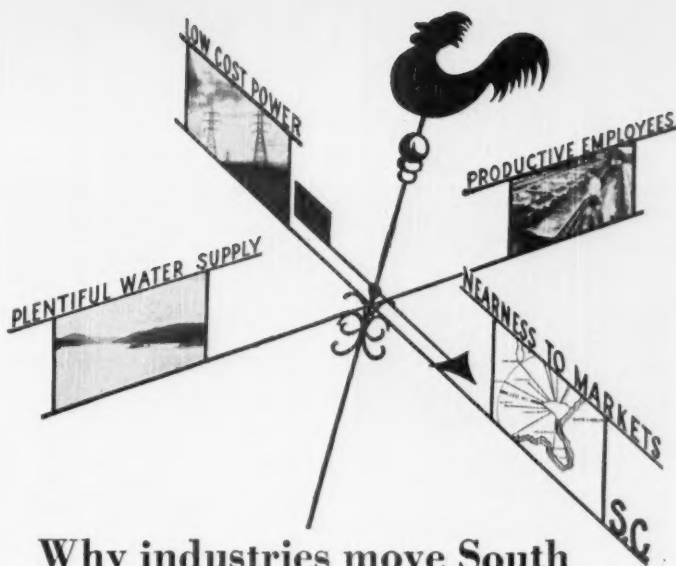
• **Reopening**—About one-third of the marginal mills reopened quickly, and many of the portable mills are now back in operation. In some instances, operators conferred with wage-hour officials and found they weren't covered by the law—since it exempts forestry and logging operations where there are 12 or less employees. In other cases, repairing or replacing machinery, and substituting mechanical processes for some former manual work stepped up production—offsetting the higher labor cost. And in many instances, the older (and formerly cheaper) workers were replaced by younger men, able to do more in a regular workday.

The change-over to the 75¢ minimum had no effect on job levels in larger mills with up-to-date and well-kept machinery and efficient methods. And it wasn't even noticed in Birmingham and in other industrial, unionized sections of the state—where employers already were paying more than 75¢ an hour for all mill jobs.

According to Joseph C. Noah, manager of the Birmingham wage-hour office which covers Alabama, most mill operators appear confused about the new minimum—and their confusion is the real basis for their worry about the implications of the new minimum.

• **Meetings**—To clear the uncertainty, agents of the wage-hour division in Alabama are holding five meetings a week with lumbermen and other employers throughout the state.

The Alabama wage-hour office reflects the position of the head office in Washington: If marginal and submarginal companies can't afford to pay the standard wage, they shouldn't be in business; workers "shouldn't be forced to subsidize inefficient employers by accepting substandard wages."



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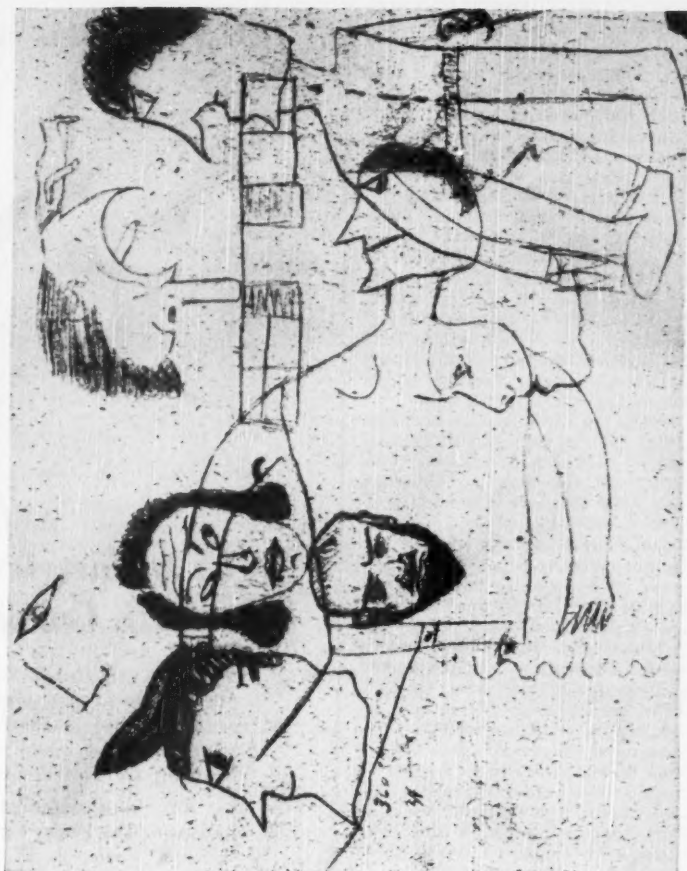
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CLUES



The Doodling of Negotiator "X"

It is a rare man—management or labor—who doesn't doodle when he's seated for a long period at a somewhat pointless conference with a pencil and paper at hand.

These drawings are photographs of the two sides of a cardboard backing which is standard on every 8 1/2 x 11 paper pad. Few offices or conference rooms are without them. This particular cardboard was left, last week, on a conference table in Detroit's Sheraton Hotel. A little earlier, high officials of the Chrysler Corp. and of CIO's United Auto Workers had been sitting around that table. During the course of a fruitless effort to reach a settlement of the Chrysler strike, one of the participants doodled. The resulting pictures were left, among other debris, just about in the center of the table. Their location makes it impossible to identify them as the handiwork of any one negotiator, or of one or the other sides of



the table. BUSINESS WEEK took them to one of the nation's leading psychiatrists. His views are reported on the next page.

?????

Business Week asked a psychiatrist what conclusions he would draw from the sketches made in Chrysler negotiations.

BW—Before we tell you the origin of these doodles, will you take a look at them and tell us what seems meaningful about them.

PSYCHIATRIST—It is very unscientific to attempt to analyze a personality from such fragmentary evidence. I wouldn't try. There are, however, some things in these interesting drawings which seem obvious.

BW—Just point them out. We are agreed that you are acting in a somewhat nonprofessional capacity; we will report your views anonymously.

PSYCHIATRIST—First of all, it is clear that these sketches have been produced by a male. Although they contain both male and female sex symbols, the whole approach is normally, healthily masculine.

Second, these were produced in the context of a changing situation. At some points the artist was completely dissociated from what was going on around him—bored, perhaps—and concentrated all his faculties on his drawing. At other points, his attention was elsewhere, and he let his pencil run unconsciously.

BW—The facts of the situation in which these were drawn would tend to verify that.

PSYCHIATRIST—Either because he is a well-disciplined personality or because the situation requires it, the artist is suppressing strong aggressive drives. He is using the drawings as an outlet—projecting his hostilities through his pencil, as it were. You will note at least two, and maybe four, points here where he has broken his pencil lead. He bore down too hard under some tension which he could not naturally release. Something had to give and the pencil point served.

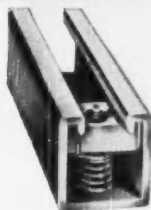
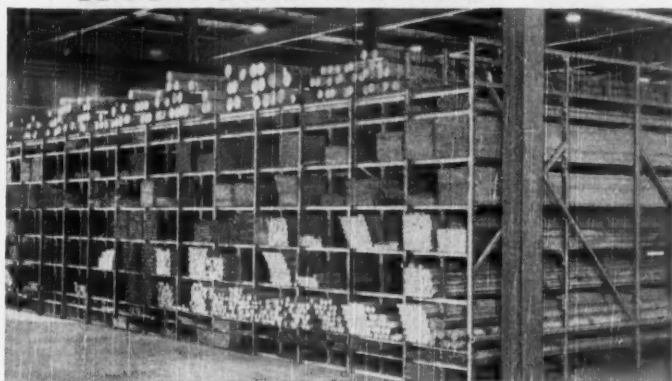
Consider the two most painstakingly executed pictures: the bearded face and the one directly above it. They suggest an atmosphere or feeling of suspicion. "Watch out," they seem to say, "an attack may be coming."

Look at the torso-less male figure. After that was drawn, the cardboard was turned around and two female figures drawn above it. Very significant. It suggests our artist has the feeling of being overpowered, borne down.

BW—Is there something revealing in your previous assertion that these were drawn in a changing situation?

PSYCHIATRIST—I think so. It suggests that though the man's degree

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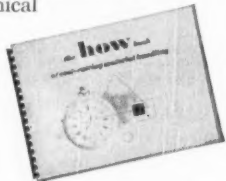
He Needs An Economy Diet ...



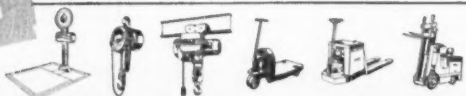
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of involvement changed—and thus the situation involving him personally altered—the surrounding emotional climate stayed constant and was not affected by his intervention or withdrawal. If you look closely, you will see that his unconscious doodles have a distinctly labyrinthian quality. He is in a maze, he doesn't know the exit.

His consciously drawn figures show aggression, suspicion, hostility, and menace. Normal reactions for a man who thinks himself lost in a labyrinth.

BW—Do you have any identification for any of these drawings, Doctor?

PSYCHIATRIST—None. The heavily drawn figure over the head of the torso-less man has a Renaissance quality about it. The artist has seen pictures of the Venetian Doges or the Medici. His association might be cruelty or ruthlessness, qualities popularly attributed to such Renaissance figures. It would be consistent with the tone of the other drawings.

The bearded man might be a modern Mephisto. Some of the others could be anything or nothing. Should I recognize somebody from a drawing here?

BW—This is their origin. They were left on the table of a bargaining session between Chrysler and the UAW. A few people who have looked at them suggest that the open-mouth, tongue-protruding figure is a caricature of Walter Reuther.

PSYCHIATRIST—Ah. I have only seen Reuther's face in newspaper and magazine photographs. I cannot comment on how much resemblance we have here. But I would say this is by far the most interesting drawing.

BW—How so?

PSYCHIATRIST—It is a triple phallicism: the nose, the tongue, the opened, half-moon mouth. You might say it represents a distillation of the artist's hostility and fear. His ambivalence* is here sharply focused. Whoever the figure may be, the symbol drawn is a fearful one.

BW—Then you might be prepared to conclude that this is the work of one of the management representatives.

PSYCHIATRIST—Certainly not. From what I know of internal union affairs—which isn't much, but which gives me the impression they aren't very different from interpersonal relationships in other institutions or in family units—it could just as easily have been produced by one of Reuther's closest associates. Can you assure me that jealousies, fears, and hostilities do not exist within the union family?

BW—No, sir.

* Ambivalence: Coexistence of antithetic emotional attitudes toward a given object. The emotions, side by side, so to speak, act entirely independently of each other.

Psychiatric Dictionary, by Leland E. Hunsie and Jacob Shatzky. Oxford, 1940.

Package for GM

UAW wraps up 31¢-an-hour demand to serve at GM contract negotiations Apr. 1. Pension demands are tougher than at Ford.

The United Auto Workers (CIO) will serve a 31¢ "package" demand on General Motors by Apr. 1—60 days before the contract covering 230,000 GM workers runs out on May 28. And while the opening demand isn't inflexible—initial contract proposals seldom are—it's controversial enough to cause new worries for the auto industry.

• **Pension**—UAW wants GM to go beyond the \$100-pension agreements signed by Ford and steel companies—and sought in the present strike against Chrysler. The union wants a minimum \$125 monthly pension, including federal social security. It wants GM to agree on (1) fixed payments, amounting to about 22¢ an hour, to maintain "an actuarially sound trust fund," and (2) a joint board of administration, having equal company-union representation and an impartial chairman.

• **Wage Boost**—Then UAW wants a wage boost amounting to 8¢ an hour to continue GM's "annual improvement factor" raises—and to make the GM plan conform with union figures on increased productivity. GM started improvement-factor raises in 1948, providing for annual 3¢-an-hour pay boosts to keep wages in step with a 2% climb in worker efficiency.

Now UAW says the 2% figure set by GM was too low. It figures productivity went up 3% in 1948 and in 1949. So, to keep the wage-productivity balance, pay must go up 8¢ an hour in 1950, says the union.

On top of this, UAW wants "elimination of the differential between GM and the industry [wage] pattern." The union says this differential, amounting to 1¢ an hour, results from GM pay cuts under its wage-price escalator contract.

The three financial demands, adding up to 31¢ an hour, would lift GM's average wage costs from an estimated \$1.62 to \$1.93 an hour.

• **Union Shop**—But, stiff as these demands are, GM-UAW negotiators may find them easier to deal with than one of the union's main noneconomic demands. UAW is going all out this year for a union-shop clause from GM. The company has always strongly opposed the union demand for one. It has been a stumbling block in GM-UAW bargaining before this.

This time UAW is in its strongest bargaining position ever on the union-



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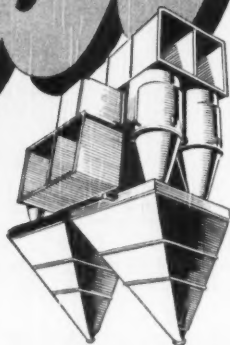
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shop issue—backed by a strong vote in a National Labor Relations Board election last week (page 122).

Meanwhile, UAW and Chrysler are still deadlocked in their negotiations to end the Chrysler strike, and differences of opinion about the way the Ford-UAW contract should be interpreted threaten to flare up into another major dispute.

LABOR BRIEFS

A right-wing victory by CIO's International Union of Electrical Workers at General Motors' plants surprised nobody (BW—Feb. 18 '50, p. 110). But the IUE 8-to-1 margin of victory over UE did.

Union hiring halls, held illegal in federal court, now face a probe by a Senate subcommittee. Group plans hearings to find out whether hiring halls help stabilize hiring, or foster illegal closed-shop relations.

Southern bargaining practices—particularly in the textile industry—are also due for congressional inquiries. A House subcommittee already has started hearings; Senate group has them on the docket.

New union objectives will be aired at major conventions. For clues to labor's plans for Dixie, watch the CIO textile workers in Boston May 1; for national CIO policy, the steelworkers in Atlantic City, beginning May 9.

Support for A&P food chain in its antitrust case is building up in locals of AFL's Food Employees Union. They are writing congressmen, criticizing Dept. of Justice "persecution."

\$200-a-month pensions in the auto industry by 1960—that's what UAW President Walter Reuther says he is aiming at. Reuther told a rally this week that union will "build brick by brick" to reach its long-range goal.

Building trades contract between Cleveland employers' association and 19 AFL unions boost wages 12¢ an hour. The new agreement, which runs until 1952, cleared up a strike of 1,000 building laborers.

The Pictures—Cover by Jon Brenneis; Combine—143; Lynn Crawford—104, 112 (top); Alfred Eris—62, 63, 64, 66; Int. News—32; Keystone—137, 138, 140; Wide World—19, 21, 80.

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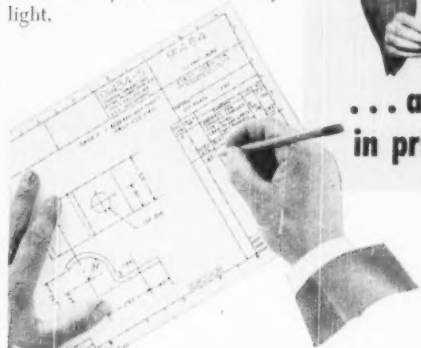


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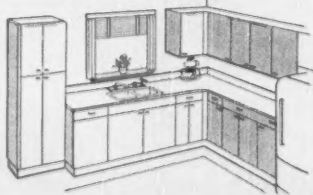
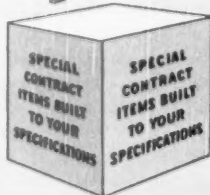
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INTERNATIONAL OUTLOOK

BUSINESS WEEK

MARCH 11, 1950



Stalin has the heat on France again. The Communists there are brewing trouble over U. S. arms aid.

What's Stalin up to? He could be trying to:

Weaken the French in Indo-China by undermining France's strength at home.

Cover up an early Soviet move to overthrow Tito.

Turn France against the U. S. as a first step toward neutralizing western Europe in the cold war.

It won't be possible, of course, for the Communists to hold up much of the stuff we send to France.

But this row could easily bring down the Bidault government.

Here's why: French workers can now press wage claims under France's new collective-bargaining setup. So the Reds will demand more money, thus involving non-Communist workers in their political maneuvers. Then the riots start and the Bidault government has to use strong-arm methods. At that point the Socialists are sure to drop their support of Bidault.

Meanwhile, de Gaulle is tightening up his organization.

The general even has a new formula. He is grooming an "elite" instead of trying to build a big public following.

De Gaulle is also trying to bolster his labor flank. He's wooing a new labor group called the Confederation of Independent Workers (CTI).

But this group is also getting support on the quiet from the French manufacturers association. And that could easily stunt its growth.

Franco-German relations aren't improving any.

France's treaty with the Saar has soured the Adenauer government on a possible Bonn-Paris axis. The French have tied up the Saar economy for 50 years ahead.

In fact, this Saar business sours Germany on the whole West—not just France. And it makes Soviet maneuvers in western Germany all the easier. For example, German steel manufacturers are being tempted by Russian offers of big markets in Communist China.

The State Dept. is pleased—indeed, complacent—with the way things are going in Yugoslavia.

State has never thought the Russians would risk an outright military move. Perhaps guerrilla action, but nothing more.

State, meantime, is helping to prevent the economic collapse of Yugoslavia by redirecting its trade to the West. State thinks Tito actually will be better off trading with us (page 137).

London and Washington are figuring on another round of financial talks just after Chancellor Cripps' April budget is out.

But it will take a lot of U. S. pressure to get anything done on the problem of Britain's sterling balances. (Repayment of these war debts creates a demand for British exports in nondollar markets; meanwhile, Britain urgently needs dollars.)

True, sterling repayments will be lower this year than last. Still the total will reach at least 150-million pounds.

What's more, while the releases to India are being cut, ambitious devel-

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK
MARCH 11, 1950

opment programs are going ahead in Eire and Australia. And these are being financed by the withdrawal of balances from London.

•
The British Labor government has no plans for scaling down or funding this sterling debt.

Nor, for that matter, is it ready to do anything about the huge amount of private investment capital going into South Africa, Australia, and other parts of the Commonwealth. This, too, uses up British resources.

•
A detailed program for southeast Asia isn't possible now. That's the word Secretary Acheson gave the Senate Foreign Relations Committee this week.

But Acheson wants ECA to have \$100-million to spend in the area—just as a starter. And there's a good chance Congress will buy the idea.

The money would go for spot aid in Indo-China, Burma, and Thailand (Siam). The State Dept., rather than ECA, would decide on who gets the cash. Chances are such projects as boosting Siamese rice production or dredging a deep water channel into Bangkok would be typical.

•
European experts figure that Moscow is going to step up its drive in Asia and Africa.

According to them here's what Moscow is up to:

Making Hong Kong a training and operational center for Communistic agitation in southeast Asia.

Guiding Communist infiltration into India and Tibet from the headquarters of Russia's Turkestan army.

Building the Soviet embassy in Addis Ababa, Ethiopia, into the nerve center for propaganda in Africa.

•
Why is Ho Chi Minh, Communist leader in Indo-China, exchanging ambassadors with Yugoslavia? That's a question that intrigues Washington.

It's easy to see why Tito likes the exchange. He's been looking for friends, especially in Communist circles.

As for Ho, the experts figure there's just a chance he wants to hedge, too. Washington is tentatively hopeful that that may prove true.

•
Britain is striving to maintain its lead in gas-turbine development.

The British have a gas turbine for trucks and buses almost ready for production. The Rover Motor Car Co. is in the forefront here. Rover has had the advantage of several engineers who worked on jet development during the war with Sir Frank Whittle, inventor of the gas turbine.

•
The National Assn. of Manufacturers is getting behind Washington's drive for higher U. S. imports.

NAM will plug the idea in a series of meetings—a dozen or more—in major U. S. cities. The first is to be in New York Mar. 21. This will be a joint affair with the Export Managers Club of New York.

What the NAM wants is to close our foreign trade gap by getting imports into balance with exports. Otherwise, either the U. S. taxpayer must go on paying for a big part of our exports (as under ECA), or U. S. exporters must lose a big part of their business.

BUSINESS ABROAD



NEW U.S. AMBASSADOR, George V. Allen, presents his credentials to Marshall Tito. Allen pledged to work for cooperation between the U.S. and Yugoslavia.

U. S. Doubles Its Ante on Tito

Ex-Im Bank's \$20-million loan to Yugoslavia last week gives us a \$40-million stake in Tito's survival. He's surviving, but grandiose Five-Year Plan had to be shelved.

BUSINESS WEEK's correspondent in Germany, John J. Christie, recently returned to his home base in Frankfurt after a two-months tour in Yugoslavia. This is his report on conditions there.

The U.S. has never looked on Tito as a sure-fire investment. As a gamble in our foreign policy, though, the Yugoslav dictator is shaping into something better than a long-shot. Last week the U.S. doubled its stakes on Tito; the Export-Import Bank granted its second loan in the amount of \$20-million to Yugoslavia.

• **Cheap**—For the U.S. in particular, and the West in general, this encouragement of Tito has proved to be one of the cheapest ways yet of containing Russian communism. To date, the West's aid to Tito has come to \$51.7-million. This is far less than the \$1-billion or so that the U.S. has spent in Greece for the same purpose.

Returns on this gamble are already beginning to show up. The Kremlin now seems to realize that moving in on

Tito may mean a general alarm, not just a family squabble behind the iron curtain. Tito now has an implied U.S. commitment for limited military aid in case of Soviet attack. It's as obvious in Moscow as it is in Washington that, with our encouragement, Tito has turned his economy toward the West.

I. Tito Abroad

Tito's fall from Soviet grace produced an economic vacuum in Yugoslavia. About 50% of the country's postwar foreign trade had been with the Cominform nations.

Long-term contracts with Russia, Hungary, and Czechoslovakia were providing badly needed mining, metallurgical, chemical, and electrical equipment. Hungary, for example, had installations for a Yugoslav aluminum plant ready to ship. But only a tiny fraction of these capital goods arrived before the Soviet blockade crippled Tito's ultra-ambitious Five-Year Plan.

Last year Tito began the delicate task

of reorienting his economy entirely toward the west. He had quite a jolt at first. The Yugoslavs hoped that the West might be willing to underwrite their Five-Year Plan, and they stated their requirements for aid on that basis. The U.S. appraisal, of course, was different.

• **Bad Risk**—The U.S. figured that it made sense to bolster Yugoslavia's economy in the face of Russia's threat to its independence. But Washington couldn't see the vague and overly ambitious Five-Year Plan as a blueprint for an aid or credit program. Nor did the U.S. consider Tito, a Communist dictator in a precarious position behind the iron curtain, a good risk for venture capital on long-range projects. So Yugoslavia had to settle for a western credit policy based on these two principles:

(1) Priority assistance for industries having the best potential for volume exports readily marketable in the West; minimum aid for basic industries—like agriculture and communications—just enough to meet security needs and to facilitate exports.

(2) Extension of credit in installments. This would act as an incentive to the Yugoslavs to put their best efforts into foreign-aided projects. The better their efforts, the better their chances of getting favorable consideration on further loan requests.

• **Loans**—The Ex-Im Bank loans (\$20-million in Sept., 1949, \$20-million last week) fit into this problem. They are intended to aid Tito in rehabilitating export industries, and to keep up the level of the threadbare Yugoslav economy with American industrial goods.

Fortunately, Yugoslavia's three biggest export items—metals, timber, and foodstuffs—are just as marketable in the West as they were in the East. Non-ferrous metals (copper, lead, zinc, bauxite, and mercury) are the country's biggest dollar earners.

The Yugoslavs are looking to the World Bank for aid, too. A \$25-million loan has been pending for several months. Tito is irked by the delay, charging that the West wants political concessions in exchange for the loan. But the chief stumbling block is technical: Yugoslavia hasn't established its international credit standing by funding its prewar obligations. (The main claim is that of U.S. bondholders for \$38-million.) Chances are the World Bank loan will come through before long.

With his World Bank money, Tito plans to give top priority to the development of the Kolubra coal basin. Kolubra can be made to produce 5-million tons in two years, doubling its present output. Also high on the list are agricultural implements to help make the transition from primitive to mechanized farming. And equipment is urgently

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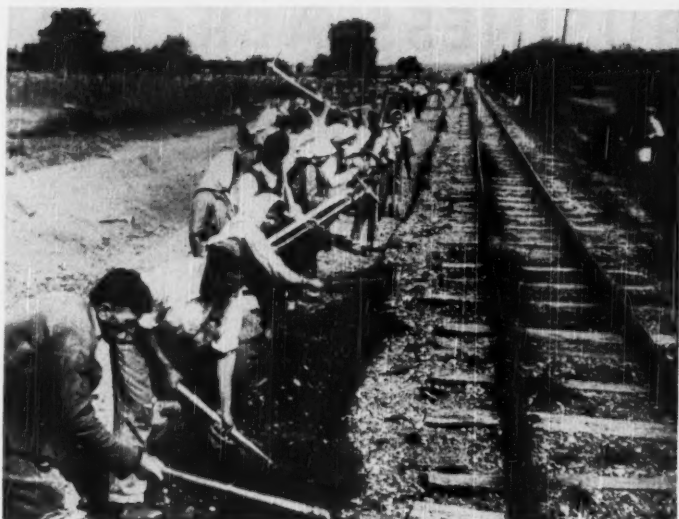
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OLD AND YOUNG, male and female, make up volunteer labor brigade repairing rail bed. Yugoslavia's rusty rail system needs modern equipment, lots of work.

needed to modernize an incredibly poor railroad system.

• **Barter Deals**—Yugoslavia signed its most notable trade agreement, since the Cominform rupture, with Britain. This barter pact sets up an exchange of more than £20-million worth of goods annually over the next five years. It will help satisfy Tito's big appetite for new productive capacity. Included in the deal are British turbines and generators, cable-manufacturing machinery, equipment for new manganese, sulphuric acid, and nitrogen plants, and mining machinery.

Tito also has a \$120-million commercial pact with West Germany in the works. Germany logically should become Yugoslavia's major trading partner. But much depends on how far the Yugoslavs can go toward supplying West Germany with food. There'll be a big gap in Germany's food supply come the end of Marshall Plan aid in 1952.

• **Won't Knuckle**—Despite aid from the West, Tito will keep sniping at western capitalism. He wants his record to show that accepting credits involves no political obligations—that he will knuckle under to the powers of the West no more than he would to the Soviet Union.

But Yugoslav state planning officials told **BUSINESS WEEK** that they intend to join the West on various international agencies covering such matters as standards, patents, trademarks, communications, and transport. They cite the recent U.S.-Yugoslav air transport agreement as a first step in that direction. And it's likely that Yugoslavia will ease its tight restrictions on the

entry of foreign technicians for installing new equipment and for training personnel.

II. Tito at Home

Tito's far-reaching industrialization goals are proving much more difficult to achieve than he wants to admit. His Five-Year planners want to put up factories faster than they can get proper equipment and technical know-how to operate them.

• **Know-How Shortage**—The problem of generating native know-how is Yugoslavia's most serious handicap. Virtually all industrial manpower has to be recruited from a farm population. What skilled labor there is must be parcelled out among industries—and it's spread pretty thin.

All factories and mines have programs for training peasant youth (picture, page 140). And the technical university at Belgrade, designed to accommodate 2,000 students, has 7,000 students now. Some of its engineering students have pledged to finish a five-year course in four and one-half years in order to meet the regime's urgent need for trained men.

• **No Incentive**—There's an incentive problem, too. The living standard is low, and there are precious few things to buy in the stores. This lack of consumer goods has caused serious labor turnover in some industrial areas. When they found that they couldn't buy what they wanted, workers went back to their farms.

Tito is trying to fill this incentive gap with production bonuses, most-valuable-worker awards (picture, page 140), and

BUSINESS IN MOTION

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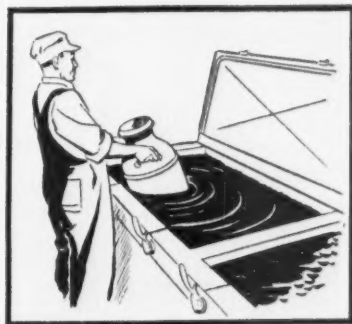
Milk must be cooled quickly after milking, in order to lessen the growth of bacteria, and this has led to the development of various methods of reducing the temperature. On the non-electrified farm the dairyman may make use of a cool springhouse, or natural or artificial ice. Where electricity is available, however, mechanical refrigeration has become a virtual necessity. It might be thought that such an application of refrigeration would entail no particular problems, but that is not the case. The milk cooler presents its own special conditions of use, and hence requires specific, not general, consideration of those conditions.

In comparatively recent years the tank-type cooler has come prominently forward. This consists of a large tank of water, held close to or at freezing temperature by mechanical refrigeration. The 80-lb. cans of warm milk are immersed in the water until cooled. In some models, the tubes or pipes through which the refrigerant flows are within the tank itself, in order to avoid the insulating effect of the tank lining if the coils were outside. This location of the coils, however, subjects them to some possibility of mechanical injury, and complicates cleaning. Another problem that has arisen in connection with these coolers is the selection of the material for the lining. It has to be able to stand not only the weight of the cans, but the shocks of dropping them to the bottom, and, of course, must be made watertight. During the war the only practical material available was galvanized iron, which rusts quickly under such conditions. When restrictions were lifted on the use of copper and copper alloys, a large manufacturer of these coolers came to Revere with a

number of ideas and suggestions. He claims to be the originator of the tank-type cooler, incidentally.

His basic thought was that it should be possible to line the tank with non-rusting copper. Then, since copper has the highest heat-conductivity of any commercial metal, he planned to attach the copper cooling coils to the outside of the copper lining. Could we furnish a copper that could be worked easily, yet be sufficiently strong to withstand the inevitable mechanical abuse?

Problems such as this challenge Revere. We worked closely with our customer, investigating the mechanical requirements of fabrication and of use, and the heat-conductivity needs. Two of our sheet metal specialists were assigned to the project, and went to work with their staffs. Tests showed that electrolytic copper was not mechanically feasible, and eventually a specially-modified copper was tried and found entirely successful. The Revere welding department developed a fast method of attaching the Dryseal copper tube to the



outside of the special copper lining, and the project was finished. Today, the manufacturer is selling all he can produce of this type of cooler, and, profiting by our mutually-developed data, is expanding his use of special copper alloys in coolers for other industries.

Here is a case that is fairly typical, we think, of the manner in which American industry works together as it moves ahead. If you are a manufacturer and have an idea whose practical expression may require specialized knowledge, why not talk it over with your suppliers? You may go much further and faster with than without their collaboration.

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NATIONAL HERO: This proud miner carries a banner, which symbolizes his most valuable-worker award.



MACHINE TOOLS, like this one on display at the Zagreb Fair, take top priority in Yugoslavia's industrialization drive.



FARM TO FACTORY: Yugoslavia's few skilled workers are part-time instructors in factory training program. Peasant labor force is big problem.

social security benefits. But chock-full store windows will have to wait.

• **Determination**—There's plenty of determination in Tito's industrialization program. A good example is the "machine tool" factory established in 1948 at Zeleznik, just outside Belgrade. Like many other Yugoslav plants, it's treated more like a national shrine than a factory. Volunteer labor brigades constructed it in seven months. Some 70% of the plant's machinery is German reparations. Other machines were either provided by UNRRA or purchased one by one from several countries.

Ostensibly, the plant's chief products are presses and grinding machines. But actually it serves as a general workshop, turning out a range of special

equipment and parts for everything from rolling mills to naval vessels. It's known as a "mother factory" for equipping new plants.

And its management pattern is similar to that of mines and factories all over the country. Top man in Tito's factories is frequently a war hero, always a trusted party official. Those with specialized training and experience generally are placed on the operating level, not in the top management.

• **Split Authority**—Recently, Tito put through a decree to decentralize authority over industry. It is a major step toward trying to make Titoism a distinctive brand of communism. The decree calls for splitting up planning functions and operational control. The planners will stay in the federal min-

istries in Belgrade; those charged with operations will be assigned to the regional governments. Tito hopes to shorten the chain of command that way. To justify this decentralization, Titoists quote Marx to the effect that socialism's greatest weakness is a tendency toward centralized bureaucracy. Tito himself says, "Bureaucracy is a faceless mask to the people."

• **Police State**—Tito's plans for ridding Yugoslavia of communism's bureaucratic plague don't involve watering down communism's police state practices. But there is one area where he may have to ease up: collectivization.

Tito is disturbed about peasant antagonism to his collectivization program. Rugged, independent farm folk have been a thorn in the side of every Communist regime's plans for collective farming. Tito knows he cannot afford to lose peasant support. Treating his peasants right may help the cause of Titoism with discontented farmers in neighboring Communist countries.

• **Food Problem**—Besides the unpopular collectivization measure, peasants resent the government's harsh demands for food for export. Both factors are destroying incentive at a time when emphasis on agricultural production is sorely needed. And Tito's food problem is further complicated by the resettlement of a large part of the agrarian population in industrial areas, and by the need to feed a large army. So Tito realizes that he must ease up a little on the peasants.

Yugoslavia obviously wants to appear less like a police state in the eyes of the West. Such an impression may be gained in negative ways—such as refraining from open persecution of the church. On the positive side, it may be sought by giving foreign visitors more freedom of movement and information. Nevertheless, Yugoslavia will remain a police state by western democratic standards.

III. Tito Gamble

Yugoslavia is still on the hot seat—in danger of a direct or inspired Soviet attack. But neither Kremlin threats nor U.S. money has brought Tito solidly into the western camp. Absolute self-determination in foreign, as well as domestic policy, is the life blood of Tito communism.

Stock in Tito is not for widows and orphans. Loans (and perhaps limited arms aid some day) to Yugoslavia are a gamble that is dictated by practical considerations of the moment. But it's a gamble that seems worth the risk.

While Tito remains, people behind the iron curtain will have a living reminder that there is an alternative to Moscow.

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See page 141 of this issue for "Clues".

Tit for Tat

U. S. tells satellites: You
can't draw on assets here while
you are holding up on \$200-
million of U. S. claims.

Attorney General J. Howard Mc-
Grath this week plugged a hole that
has been letting trickle of dollars get
through to Russian satellites Bulgaria,
Hungary, and Rumania. On the advice
of the acting Alien Property Custodian
and with State Dept. approval, he re-
voked General License No. 32A of
the Aliens & Nationality Act.

This license became effective on
Dec. 7, 1945. It permitted enemy na-
tionals whose assets were blocked by
the U. S. at the outset of the war to
draw up to \$200 a month from these
assets "for living expenses." Of an ap-
proximate \$33-million of blocked Hun-
garian-Rumanian-Bulgarian assets on
our books prior to Dec. 7, 1945, more
than \$2-million has been whittled away
through the use of G. L. No. 32A.

• **Pre-Vogeler**—By coincidence, Mc-
Grath's action came on the heels of the
sentencing of American Robert Vogeler
by a Hungarian "People's Court." This
made it look like a retaliatory measure.
Actually, the move had been long
planned for two practical reasons:

(1) These Russian satellites have ig-
nored the terms of their peace treaties.
The treaties called for indemnities to
Americans whose assets were confiscated
during the war, whose properties were
damaged by the war or whose properties
were to be "nationalized."

(2) The U. S. wants to keep the
blocked assets to serve as a kitty to
guarantee indemnity payments.

Rumanian assets now blocked here
amount to roughly \$24.1-million; Hun-
gary has \$3.3-million; and Bulgaria,
\$2.7-million. Standard Oil Co.'s claim
against Rumania alone, which is based
on seized properties, is close to \$33-
million. Total U. S. claims against the
three satellites now run more than
\$200-million.

• **Limited Scope**—McGrath's action ap-
plies only to those assets seized when
we went to war, or when those coun-
tries were occupied by the enemy. It
does not apply to assets accumulated
here since Dec. 7, 1945. Moreover, it
does not shut off the flow of money
being sent to relatives in those countries
by Americans—roughly \$50,000 per
month for each country.

But it's reported that the State Dept.
is still toying with the idea of blocking
all assets held in the U. S. by nationals
of these satellites as a means of stimu-
lating settlement of American claims
in those countries.



Helper for Cripps

Until the Feb. 23 election in Britain, Hugh Gaitskell was Minister of Fuel & Power. He had the nationalized coal, electricity, and gas industries under his wing. Now Prime Minister Attlee has moved Gaitskell to a vacant post—Minister of Economic Affairs. His job will be to help Chancellor Cripps keep tabs on the whole British economy. Gaitskell is one of the coming right-wingers in the Labor Party.

BUSINESS ABROAD BRIEFS

Helicopter ferry, the first scheduled service of its kind, will carry Britons between Cardiff and Liverpool, starting in June. British European Airways will use four-seater Sikorsky S-51s for the runs.

Iceland now has a wool-washing machine, thanks to the Marshall Plan. The 182-ft.-long machine can handle the island's entire wool output—about 600 metric tons a year.

Robert R. Young offered the Mexican government 69 used C&O sleeping cars for \$20,000 each.

Japan's refineries are at work again processing imported crude. Toa Nanyo Kogyo Co., partly owned by Standard-Vacuum, expects to have its two plants handling up to 10,000 bbl. a day by April.

Britain went to Italy to fill an order for 4,000 low-pressure water valves for the British Electricity Authority. Home manufacturers had all they could handle in orders for Health Ministry housing projects.

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More Billions for Housing?

A new federal housing program which stakes out huge new areas for government aid is coming up in Congress.

Hitherto, Congress has largely limited federal aid to two areas—supporting the private mortgage market and subsidizing homes for low-income families. But the ideas behind the new \$1-billion home-financing program for so-called “middle-income” families—the Maybank bill—are so sweeping that they raise fundamental questions about the government's role in housing.

The bill proposes a new federal agency to make long-term, low-interest rate loans to housing cooperatives, which might build anything from single-family homes to big rental apartments. Interest rates would be a new low for home financing—about 3½%. Terms would also set a new record for home mortgages—50 years.

To get started, the agency would sell up to \$100-million of preferred stock to the Treasury. Borrowers would also be required to buy capital stock of the agency in amounts equal to perhaps 10% of their loans. The main financing, however, would come from selling up to \$1-billion of government-insured bonds.

All this leads us to ask some questions:

How far should the government go in aiding home-building?

Originally, public housing was designed to help families with the lowest incomes. It was popularized in large part as “slum clearance.”

In addition, the federal government is now helping to finance about one-half of all homes through insurance and guarantee programs.

Finally, the federal government is expanding the mortgage market by buying mortgages from private investors through “Fanny May”—the Federal National Mortgage Assn. FNMA's activities now account for one-fifth of the government deficit.

Should we keep on extending federal aid until housing becomes wholly a government function?

Our second question is: If the government should do more to encourage housing, is this the way to do it?

If the middle-income proposal becomes law, the government will make loans through a mortgage corporation—side-stepping the private mortgage market. Since the market is now financing the industry at a record production rate, we see no need for undercutting private credit.

Aside from the question of using public credit this way, the proposed mortgage terms are unprecedentedly liberal. Few members of housing cooperatives would live long enough to pay off their obligations.

We have one more question—will the middle-income proposal strengthen the home-building industry?

Home-builders today are turning out a million homes

a year—for a ready market. Shortly, too, the industry will feel a powerful upward shove from the public housing program enacted last year. This is expected to start about 60,000 homes this year—and more in future years. To add the powerful stimulant of a new program may lead only to a new instability in the industry. Overbuilding on public credit can bring a bust—just as overbuilding on private credit has too often in the past.

Nor will pumping in new credit help the industry's basic problem—high costs. True, the new program would reduce the monthly cost of financing homes for the middle-income families who benefit. But it would do nothing about the restrictions, obsolete building codes, and antiquated methods that keep the real costs of home-building high for all families. Indeed, the new program would tend to freeze costs at today's high level—or even to raise them.

Beyond these considerations there is a basic question of public policy. The Maybank proposal, in effect, allows certain groups to have access to low-cost public credit to help them get homes. This is contrary to sound public policy.

On the economic facts of the case we see just one thing for Congress to do with this new housing program—turn it down.

The Ever-Normal Coal Bin

The felicitous exchange between John L. Lewis and the coal operators which signaled the end of the coal strike was welcome but misleading.

It is a tradition in coal that every big battle between management and union ends on a “We'll live happily ever after” note. And it's an even firmer tradition that within a year another big battle is drawn.

What is needed is some safeguard for isolating these battles so they don't engulf us all. One such safeguard might be the creation of a national coal stockpile—an ever-normal coal bin.

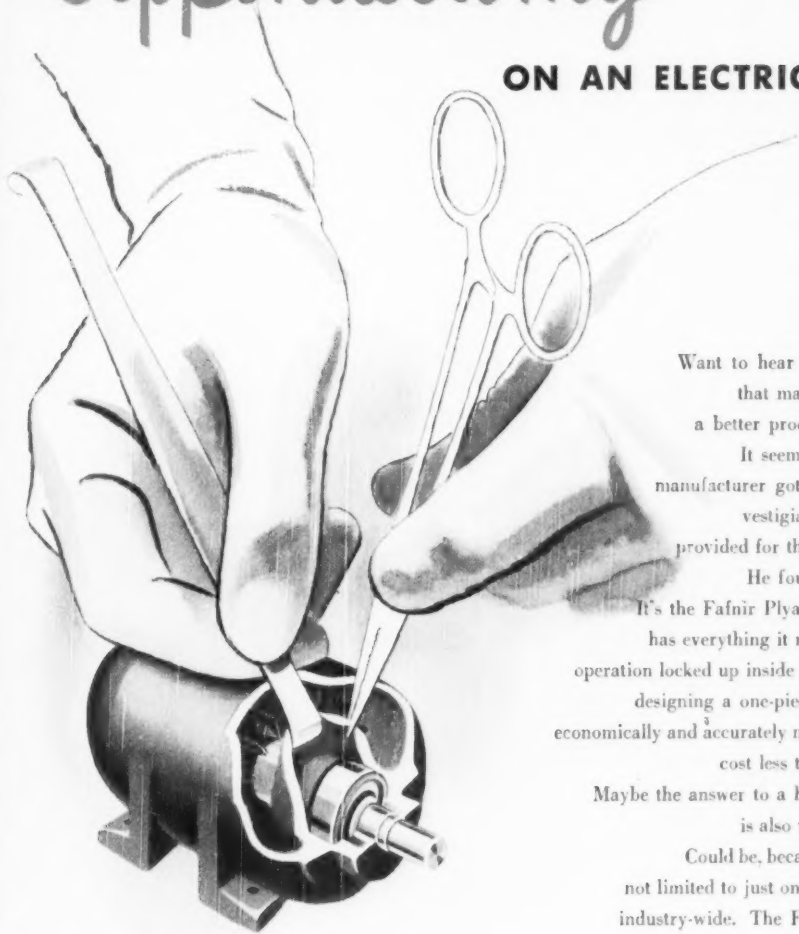
If we have a national coal stockpile of, say, 500-million tons—a year's supply—miners and operators would have plenty of time in which to wage their perennial war without endangering the prosperity of the whole country.

Such a stockpile, in government hands, should not, of course, become a weapon for either union or operators. It would be tapped only when a real emergency threatened. And even then, not everyone should be allowed to buy freely from it. Enterprises which have coal mines of their own should not be permitted to buy, during a labor dispute, any more tonnage than they normally buy to supplement their own production.

Under such conditions, the rest of the nation need not live in fear while the miners and operators carry on their economic battles.

Appendectomy

ON AN ELECTRIC MOTOR



Want to hear about an operation . . .

that may show you how to make
a better product and a better profit?

It seems a certain electric motor
manufacturer got to wondering about the
vestigial clutter of parts usually
provided for the lubrication of bearings.

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has everything it needs for years of smooth
operation locked up inside it. The rest was easy . . .
designing a one-piece end bell that could be
economically and accurately machined. The new motor
cost less to make, less to maintain.

Maybe the answer to a bearing problem of yours
is also waiting for you at Fafnir.

Could be, because Fafnir's experience is
not limited to just one or two industries but is
industry-wide. The Fafnir Bearing Company,
New Britain, Conn.

FAFNIR WIDE TYPE PLYA-SEAL BALL BEARING. Capacity for years-ahead lubrication. Space for breathing and grease expansion. Large area for housing contact, good shaft shoulders and face. Contact seals reinforced both sides with steel.



FAFNIR STANDARD WIDTH PLYA-SEAL BALL BEARING. Dust-excluding, grease-retaining contact seals composed of synthetic rubber impregnated fabric washer with split retaining ring of spring steel. Requires no separate grease chamber, filler or drain plugs.

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